

Chemical Processors, Inc.  
Pier 91 Dangerous Waste Treatment and Storage Facility

**Permit Application**

Submitted to Washington Department of Ecology  
and EPA Region X

CHEMICAL PROCESSORS, INC.

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VOLUME IV

USEPA RCRA



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SECTION A

PART A OF THE RCRA PERMIT APPLICATION



SECTION A. PART A OF THE RCRA PERMIT APPLICATION

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SECTION A. PART A OF THE RCRA PERMIT APPLICATION

40 CFR 270.10(d), 270.11(a) and (d), 270.13  
WAC 173-303-806(2), 810(2), 810(12)(a), 810(13)

A1.0 BACKGROUND INFORMATION

A1.1 Revisions Included in Part A Application for  
Part B Permit

Revised, July 1990, Sept. 1990, Dec. 1990, Nov. 1991

Several changes were made to the interim status Part A dated February 18, 1986 to be consistent with the information on Pier 91 Facility operations provided in the Part B. These revisions include:

FORM 1, Sections III, IV and VII

The operator's mailing address and phone number have been revised to reflect a change in the corporate office location.

FORM 1, Section IV

The facility address has been revised to include a street address as well as a Pier number.

FORM 1, Section IV

Standard Industrial Classification (SIC) Code 2911 (Oil Reprocessing) has been deleted, and SIC Code 4953 (Refuse Systems) has been added to more accurately characterize dangerous waste activities at the facility.

FORM 1, Section VII.B.

A response has been provided to indicate that the facility operator is not the facility owner.



FORM 1, Section IX

The topo map has been updated.

FORM 1, Section X

The Nature of Business description has been revised. The previous statement:

Pier 91 is a waste oil reclamation facility. By utilizing tank treatment, reusable oil is reclaimed by separating the impurities. Liquid wastes containing low concentrations of heavy metals and/or low concentrations of hazardous wastes are treated to remove the contaminants or render the liquids non-hazardous.

Pier 91 is a storage, blending and marketing facility of used oil fuel and hazardous waste fuel.

has been changed to more accurately characterize dangerous waste activities at the facility. The statement now reads:

Pier 91 is a waste oil reclamation facility. By utilizing tank treatment, reusable oil is reclaimed by separating out the impurities (water, solids). Hazardous and non-hazardous wastewater is treated for contaminants such as metals, phenolics and solvents, and the treated wastewater is discharged to the sewer. Solids are centrifuged and sent off site for treatment and/or disposal.

The Pier 91 Facility is also a generator, storer, and marketer of used fuel oil and hazardous waste fuel (dangerous waste fuel).



FORM 1, Section XI

The certification signature has been changed to M.P. Keller, Vice President - Operations, to reflect a change in corporate management.

FORM 3, Section III

Identification of storage and treatment capacities has been revised as follows:

Line 1 - Tank Storage Capacity (S02)

The interim status tank storage capacity of 9,036,090 gallons has been changed to include only dangerous waste storage tanks described within the Part B Permit Application. The revised gallonage is 675,950, based on the Part B facility layout described elsewhere in the Part B Permit Application. Refer to Table A1-1 for a listing of all dangerous waste tanks and associated storage capacity.

Line 2 - Tank Treatment Capacity (T01)

The interim status tank treatment design capacity of 40,000 gallons per day (GPD) has been revised for the Part B permit application and includes treatment capabilities of dangerous waste tanks described in Table A1-1. The total tank treatment capacity amounts to 80,000 GPD (average) and 241,500 GPD (maximum).

Line 3 - Other (T04)

The process code and process design capacity for other treatment processes (T04) have been deleted, since all dangerous waste operations at the facility are included under tank storage (S02) or tank treatment (T01). The



description of other treatment processes (T04) has been deleted from page 2 of 5.

FORM 3, Section IV

Estimated waste quantities were revised to reflect Part B facility operations, and waste codes were categorized to avoid repetitive counting of quantities. (The methodology for defining waste categories is discussed in Section A1.2.) Waste codes were also added to each category, and process code T04 was deleted. In September, 1990, newly listed waste codes were added to each waste category to include the new characteristic waste codes effective September 25, 1990.

FORM 3, Section V

Facility drawing was revised to show the updated layout for dangerous waste operations.

FORM 3, Section VI

An aerial photo of the facility dated March 3, 1985 was added to the Part A Permit Application. Section VI has been updated with a more recent June 1987 aerial photograph.

FORM 3, Section X

The operator certification signature has been changed to M.P. Keller, Vice President - Operations, to reflect a change in corporate management.



TABLE A1-1. WASTE STORAGE AND TREATMENT TANKS  
Revised, Jan 1990, Jul 1990, Sep 1990, Dec 1990, Jul 1991, Nov. 1991

TANK NO.	TANK NAME/USAGE	STATUS	WORKING VOLUME (GAL) PER TANK	TOTAL VOLUME (GAL) PER TANK
2307, 2308, 2309	Heated Treatment/ Storage	Planned	14,100 ea.	14,810 ea.
2310	Sludge Storage Tank	Planned	14,100	14,810
2313	Heated Treatment/ Storage	Existing (Formerly tank 164)	14,100	14,810
2501	Treatment Chemical/ Storage (not RCRA- regulated)	Existing	5,287	5,874 <sup>(1)</sup>
2701, 2705, 2707	Industrial Waste Water Treatment/ Storage	Existing (Formerly tanks 105, 109, & 111)	44,657 ea.	49,485 ea.
2702, 2704	Industrial Waste Water Treatment/ Storage	Planned	91,727 ea.	96,555 ea.
2703 2708	Waste Oil Treatment/ Storage Tank	Existing (Formerly tanks 107, 112)	44,657 ea.	49,485 ea.
2706	Oil/Coolant Treatment and Storage	Existing (Formerly tank 110)	44,657	49,485
2709, 2710	Waste Oil Storage	Planned	52,832 ea.	55,940 ea.

-----  
EXISTING TANK STORAGE CAPACITY = 311,720 GAL  
PLANNED TANK STORAGE CAPACITY = 364,230 GAL  
  
TOTAL TANK STORAGE CAPACITY (S02) = 675,950 GAL

(1) Tank capacity not included in total for maximum waste inventory for reason indicated in parentheses.



## A1.2 Methodology for Defining Part A Waste Categories

The quantities associated with waste codes reported on the Part A have been grouped into various wastestream categories. This grouping of waste codes has been adopted to avoid duplicate counting of quantities associated with wastestreams which are designated with more than one waste code.

In order to avoid this misrepresentation and to provide the most accurate estimates of the types and quantities of wastes received, it was determined that categorizing the waste codes based on chemical wastestream groups provides the most complete information about the wastestreams handled.

The wastestream categories used in the Part A were based on the categories and corresponding waste codes for the most common wastestreams historically received at the Pier 91 Facility. These waste categories and corresponding quantity estimates are summarized in Table A1-2.

TABLE A1-2. TYPES AND QUANTITIES OF DANGEROUS WASTES LISTED ON THE PIER 91 FACILITY PART A

WASTE CATEGORY <sup>(a)</sup>	ESTIMATED ANNUAL QUANTITY (LBS/YR)
Oil and Coolant Emulsions	102,000,000
Industrial Wastewaters including Alkalies	84,020,000
Industrial Waste Sludges	8,080,000
<sup>(a)</sup> Waste categories derived from facility operating history.	



SECTION A2.0

PART A DANGEROUS WASTE PERMIT FORMS 1 AND 3

Revised, Jan. 1990, Sept. 1990, Dec. 1990, Nov. 1991



**PART A**

**DANGEROUS WASTE PERMIT FORMS**

**(FORMS 1 and 3)**



## WASHINGTON STATE DANGEROUS WASTE PERMIT GENERAL INFORMATION

### Permit Application Process

There are two parts to a Dangerous Waste Permit Application—Part A and Part B. Part A consists of Form 1 and Form 3. Part B requires detailed site-specific information such as geologic, hydrologic, and engineering data. WAC 173-303-800 specifies the information that will be required from dangerous waste management facilities in Part B.

### Operation During Interim Status

Part A of the permit application defines the processes to be used for treatment, storage, and disposal of dangerous wastes; the design capacity of such processes; and the specific dangerous wastes to be handled at a facility during the interim status period. Once Part A is submitted to the Department of Ecology, changes in the dangerous wastes handled, changes in design capacities, changes in processes, and changes in ownership or operational control at a facility during the interim status period may only be made in accordance with the procedures in WAC 173-303-820. Changes in quantity of waste handled at a facility during interim status can be made without submitting a revised Part A provided the quantity does not exceed the design capacities of the processes specified in Part A of the permit application. Failure to furnish all information required to process a permit application is grounds for termination of an interim status permit.

### Confidential Information

All information submitted in this form will be subject to public disclosure, to the extent provided by RCRA and the Freedom of Information Act, 5 U.S.C. Section 552, and EPA's Business Confidentiality Regulations, 40 CFR Part 2 (*see especially 40 CFR 2.305*), and will be subject to the State of Washington Public Records Act chapter 42.17 RCW and chapter 43.21A-160 RCW. Persons filing this form may make claims of confidentiality. Such claims must be clearly indicated by marking "confidential" on the specific information on the form for which confidential treatment is requested or on any attachments, and must be accompanied, at the time of filing, by a written substantiation of the claim, by answering the following questions:

### Confidential Information (continued)

- A. Which portions of the information do you claim are entitled to confidential treatment?
- B. For how long is confidential treatment desired for this information?
- C. What measures have you taken to guard against undesired disclosure of the information to others?
- D. To what extent has the information been disclosed to others, and what precautions have been taken in connection with that disclosure?
- E. Has the Department of Ecology, EPA or any other Federal or State agency made a pertinent confidentiality determination? if so, what would those harmful effects be and why should they be viewed as substantial? Explain the causal relationship between disclosure and the harmful effects.

If no claim of confidentiality or no substantiation accompanies the information when it is submitted, EPA or the department may make the information available to the public without further notice to the submitter.

### Definitions

Terms used in these instructions and in this form are defined in the Definitions section of the Dangerous Waste Regulation, chapter 173-303 WAC.



# FORM 1—INSTRUCTIONS

This form must be completed by all applicants.

## Completing This Form

Please type or print. If you print, place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response.

### Section I

Space is provided at the upper right hand corner of Form 1 for insertion of your EPA/State identification number. If you have an existing facility, enter your identification number. If you don't have an EPA/State identification number, please contact the Department of Ecology (206) 459-6303 and one will be provided for you. If your facility is new (not yet constructed), leave this item blank.

### Section II

Enter the facility's official or legal name. Do not use a colloquial name.

### Section III

Give the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted if necessary.

### Section IV

Give the complete mailing address of the office where correspondence should be sent. This often is not the address used to designate the location of the facility or activity.

### Section V

Give the address or location of the facility identified in Section III of this form. If the facility lacks a street name or route number, give the most accurate alternative geographic information (e.g., section number or quarter section number, county records or at intersection of Rts. 425 and 22).

### Section VI

List, in descending order of significance, the four 4-digit standard industrial classification (SIC) codes which best describe your facility in terms of the principal products or services you produce or provide. Also, specify each classification in words. These classifications may differ from the SIC codes describing the operation generating the dangerous wastes.

SIC code numbers are descriptions which may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, which is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual. If you have any questions concerning the appropriate SIC code for your facility, contact your Department of Ecology Regional office (see Table 1).

Table 1. Department of Ecology Regional Offices

Northwest Regional Office 4350 - 150th NE Redmond, Washington 98052 Tel: 206-885-1900	Southwest Regional Office 7272 Cleanwater Lane Olympia, Washington 98504 Tel: 206-753-2353
Eastern Regional Office East 103 Indiana Spokane, Washington 99207 Tel: 509-456-2926	Central Regional Office 3601 West Washington Yakima, Washington 98903 Tel: 509-575-2490

### Section VII-A

Give the name, as it is legally referred to, of the person, firm, public organization, or any other entity which operates the facility described in this application. This may or may not be the same name as the facility. The operator of the facility is the legal entity which controls the facility's operation rather than the plant or site manager. Do not use a colloquial name.

### Section VII-B

Indicate whether the entity which operates the facility also owns it by marking appropriate box.

### Section VII-C

Enter the appropriate letter to indicate the legal status of the operator of the facility. Indicate "public" for a facility solely owned by local government(s) such as a city, town, county, parish, etc.

### Sections VII-D—H

Enter the telephone number and address of the operator identified in Item VII-A.

### Section VIII

Indicate whether the facility is located on Indian lands.

### Section IX

Provide a topographic map or maps of the area extending at least to one mile beyond the property boundaries of the facility which clearly show the following:

The legal boundaries of the facility;

The location and serial number of each of your existing and proposed intake and discharge structures;

All hazardous waste management facilities;

Each well where you inject fluids underground; and

All springs and surface water bodies in the area, plus all drinking water wells within  $\frac{1}{4}$  mile of the facility which are identified in the public record or otherwise known to you.

If an intake or discharge structure, hazardous waste disposal site, or injection well associated with the facility is located more than one mile from the plant, include it on the map, if possible. If not, attach additional sheets describing the location of the structure, disposal site, or well, and identify the U.S. Geological Survey (or other) map corresponding to the location.

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude at the nearest whole second. On all maps of rivers, show the direction of the current, and in tidal waters, show the directions of the ebb and flow tides. Use a 7- $\frac{1}{2}$  minute series map published by the U.S. Geological Survey, which may be obtained through the U.S. Geological Survey Offices listed below. If a 7- $\frac{1}{2}$  minute series map has not been published for your facility site, then you may use a 15 minute series map from the U.S. Geological Survey. If neither a 7- $\frac{1}{2}$  nor 15 minute series map has been published for your facility site, use a plat map or other appropriate map, including all the requested information; in this case, briefly describe land uses in the map area (e.g., residential, commercial).

You may trace your map from a geological survey chart, or other map meeting the above specifications. If you do, your map should bear a note showing the number or title of the map or chart it was traced from. Include the names of nearby towns, water bodies, and prominent points.

### U.S.G.S. OFFICES

Western Mapping Center  
National Cartographic Information Center  
U.S.G.S.  
345 Middlefield Road  
Menlo Park, Ca. 94025  
Phone No. (415) 323-8111

### AREA SERVED

Ariz., Calif., Hawaii, Idaho,  
Nev., Oreg., Wash., American  
Samoa, Guam, and trust  
Territories

### Section X

Briefly describe the nature of your business (e.g., products produced or services provided).

### Section XI

For a corporation, by a principal executive officer of at least the level of vice president.

For partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.



FORM

1

State of  
Washington  
Department  
of Ecology

WASHINGTON STATE

## DANGEROUS WASTE PERMIT GENERAL INFORMATION

(Read "Form 1 Instructions" before starting)

I. EPA/STATE I.D. NUMBER

WA D 0 0 0 8 1 2 9 1 7

## II. NAME OF FACILITY

C H E M I C A L P R O C E S S O R S , I N C .

## III. FACILITY CONTACT

A. NAME &amp; TITLE (last, first, &amp; title)

B. PHONE (area code &amp; no.)

S T E F A N I D E N N I S D I R . R E G U L A T O R Y A F F A I R S 2 0 6 2 2 3 0 5 0 0

## IV. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

2 2 0 3 A I R P O R T W A Y S . S U I T E 4 0 0

B. CITY OR TOWN

C. STATE

D. ZIP CODE

S E A T T L E

W A

9 8 1 3 4

## V. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

P I E R 9 1 : 2 0 0 1 W . G A R F I E L D S T .

B. COUNTY NAME

K I N G

C. CITY OR TOWN

D. STATE

E. ZIP CODE

F. COUNTY CODE  
(if known)

S E A T T L E

W A

9 8 1 1 9

## VI. SIC CODES (4-digit, in order of priority)

A. FIRST

(specify)

4 9 5 3 R E F U S E S Y S T E M S

B. SECOND

(specify)

C. THIRD

(specify)

D. FOURTH

(specify)

## VII. OPERATOR INFORMATION

A. NAME

C H E M I C A L P R O C E S S O R S , I N C .

B. Is the name listed in  
Item VII-A also the  
owner?☐ YES ☒ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL  
S = STATE  
P = PRIVATEM = PUBLIC (other than federal or state)  
O = OTHER (specify)

P (specify)

D. PHONE (area code &amp; no.)

2 0 6 2 2 3 0 5 0 0

E. STREET OR P.O. BOX

2 2 0 3 A I R P O R T W A Y S . S U I T E 4 0 0

F. CITY OR TOWN

G. STATE

H. ZIP CODE

## VIII. INDIAN LAND

Is the facility located on Indian lands?

☐ YES☒ NO

S E A T T L E

W A

9 8 1 3 4

COMPLETE BACK PAGE



IX. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the location of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

X. NATURE OF BUSINESS (provide a brief description)

Pier 91 is a waste oil reclamation facility. By utilizing tank treatment, reusable oil is reclaimed by separating out the impurities (water, solids). Hazardous and nonhazardous wastewater is treated for contaminants such as metals, phenolics and solvents, and the treated wastewater is discharged to the sewer. Solids are centrifuged and sent off site for treatment and/or disposal.

The Pier 91 Facility is also a generator, storer, and marketer of used oil fuel and hazardous waste fuel (dangerous waste fuel).

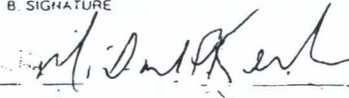
11. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)

Michael P. Keller,  
Vice President, Operations

B. SIGNATURE



C. DATE SIGNED

11/22/91



## FORM 3—INSTRUCTIONS

### Completing This Form

Please type or print. If you print place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response.

#### Section I

Existing dangerous waste management facilities should enter their EPA/STATE Identification Number (if known). New facilities should leave this item blank.

#### Section II

A. FIRST APPLICATION. If this is the first application that is being filed for the facility place an "X" in either the Existing Facility box or the New Facility box.

##### 1. EXISTING FACILITY. Existing facilities are:

a. Those facilities which received hazardous waste for treatment, storage, and/or disposal on or before November 19, 1980; or

b. Those facilities for which construction had commenced on or before November 15, 1980. Construction had "commenced" only if:

(1) The owner or operator had obtained all necessary Federal, State, and local preconstruction approvals or permits; and

(2-a) A continuous physical, on-site construction program had begun (facility design or other preliminary non-physical and non-site specific preparatory activities do not constitute an on-site construction program), or

(2-b) The owner or operator had entered into contractual obligations (options to purchase or contracts for feasibility, engineering, and design studies do not constitute contractual obligations) which could not be cancelled or modified without substantial loss. Generally, a loss is deemed substantial if the amount an owner or operator must pay to cancel construction agreements or stop construction exceeds 10% of the total project cost.

**EXISTING FACILITY DATE.** If the Existing Facility box is marked, enter the date dangerous waste operations began (i.e., the date the facility began treating, storing, or disposing of hazardous waste) or the date construction commenced.

2. NEW FACILITY. New facilities are all facilities for which construction commenced, or will commence, after November 19, 1980.

**NEW FACILITY DATE.** If the New Facility box is marked, enter the date that operation began or is expected to begin.

B. REVISED APPLICATION. If this is a subsequent application that is being filed to amend data filed in a previous application, place an "X" in the appropriate box to indicate whether the facility has interim status or a permit.

1. FACILITY HAS AN INTERIM STATUS PERMIT. Place an "X" in this box if this is a revised application to make changes at a facility during the interim status period.

2. FACILITY HAS A FINAL PERMIT. Place an "X" in this box if this is a revised application to make changes at a facility for which a permit has been issued.

(NOTE: When submitting a revised application, applicants must resubmit in their entirety each item on the application for which changes are requested. In addition, Items I and IX [and Item X if applicable] must be completed. It is not necessary to resubmit information for other items that will not change).

#### Section III

The information in Section III describes all the processes that will be used to treat, store, or dispose of dangerous waste at the facility. The design capacity of each process must be provided as part of the description. The design capacity of injection wells and landfills at existing facilities should be measured as the remaining, unused capacity. See the form for the detailed instructions to Section III.

#### Section IV

The information in Section IV describes all the dangerous wastes that will be treated, stored, or disposed at the facility. In addition, the processes that will be used to treat, store, or dispose of each waste and the estimated annual quantity of each waste must be provided. See the form for the detailed instructions to Section IV.

#### Section V

All existing facilities must include a drawing showing the general layout of the facility. This drawing should be approximately to scale and fit in the space provided on the form. This drawing should show the following:

The property boundaries of the facility;

The areas occupied by all storage, treatment, or disposal operations that will be used during interim status;

The name of each operation. (Example—multiple hearth incinerator, drum storage area, etc.);

Areas of past storage, treatment, or disposal operations;

Areas of future storage, treatment, or disposal operations; and

The approximate dimensions of the property boundaries and all storage, treatment, and disposal areas.

#### Section VI

All existing facilities must include photographs that clearly delineate all existing structures; all existing areas for storing, treating, or disposing of hazardous waste; and all known sites of future storage, treatment, or disposal operations. Photographs may be color or black and white, ground-level or aerial. Indicate the date the photograph was taken on the back of each photograph.

#### Section VII

Enter the latitude and longitude of the facility in degrees, minutes, and seconds. For larger facilities, enter the latitude and longitude at the approximate mid-point of the facility. You may use the map you provided for Section IX of Form 1 to determine latitude and longitude. Latitude and longitude information is also available from Regional Offices of the U.S. Department of Interior, Geological Survey and from State agencies such as the Department of Natural Resources.

#### Section VIII

See the form for the instructions to Section VIII.

#### Section IX and Section X

All facility owners must sign Section IX. If the facility will be operated by someone other than the owner, then the operator must sign Section X. Federal regulations require the certification to be signed as follows:

A. For a corporation, by a principal executive officer at least the level of vice president;

B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

C. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.



FORM <b>3</b>	<b>DANGEROUS WASTE PERMIT APPLICATION</b>	I. EPA/STATE I.D. NUMBER W A D 0 0 0 8 1 2 9 1
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FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (mo., day, & yr.)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA/STATE I.D. Number, or if this is a revised application, enter your facility's EPA/STATE I.D. Number in Section I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

- ☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)
- ☐ 2. NEW FACILITY (Complete item below.)

MO.	DAY	YR.

FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

MO.	DAY	YR.

FOR NEW FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION (place an "X" below and complete Section I above)

- ☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT
- ☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. PROCESS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the (Section III-C).

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.

1. AMOUNT — Enter the amount.

2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS			
Disposal:			OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or inciner- ators. Describe the processes in the space provided; Section III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
INJECTION WELL	DB0	GALLONS OR LITERS			
LANDFILL	DB1	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	DB2	ACRES OR HECTARES			
OCEAN DISPOSAL	DB3	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	DB4	GALLONS OR LITERS			
UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	O
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING SECTION III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

N U M B E R	A. PRO- CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	N U M B E R	A. PRO- CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEA- SURE (enter code)				1. AMOUNT (specify)	2. UNIT OF MEA- SURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 2	675,950	G		7				
2	T 0 1	241,500	U		8				
3					9				
4					10				



## III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESS (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

## IV. DESCRIPTION OF DANGEROUS WASTES

- A. DANGEROUS WASTE NUMBER — Enter the four digit number from Chapter 173-303 WAC for each listed dangerous waste you will handle. If you handle dangerous wastes which are not listed in Chapter 173-303 WAC, enter the four digit number(s) that describes the characteristics and/or the toxic contaminants of those dangerous wastes.
- B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS .....	P	KILOGRAMS .....	K
TONS .....	T	METRIC TONS .....	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

## D. PROCESSES

## 1. PROCESS CODES:

For listed dangerous waste: For each listed dangerous waste entered in column A select the code(s) from the list of process codes contained in Section III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed dangerous wastes: For each characteristic or toxic contaminant entered in Column A, select the code(s) from the list of process codes contained in Section III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed dangerous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

## 2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: DANGEROUS WASTES DESCRIBED BY MORE THAN ONE DANGEROUS WASTE NUMBER — Dangerous wastes that can be described by more than one Waste Number shall be described on the form as follows:

1. Select one of the Dangerous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other Dangerous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other Dangerous Waste Number that can be used to describe the dangerous waste.

EXAMPLE FOR COMPLETING SECTION IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2			T 0 3 D 8 0	included with above



Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

I.D. NUMBER (enter from page 1)										
W A D 0 0 0 8 1 2 9 1 7										
IV. DESCRIPTION OF DANGEROUS WASTES (continued)										
L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES						
				1. PROCESS CODES (enter)		2. PROCESS DESCRIPTION (if a code is not entered in D(1))				
OIL & COOLANT EMULSIONS										
2		102,000,000 (a)	P	S	0	2	T	0	1	(a) Estimated annual quantity
3	D 0 0 1									applies to entire waste
4	D 0 0 2									stream not each waste code.
5	D 0 0 4									
6	D 0 0 5									
7	D 0 0 6									
8	D 0 0 7									
9	D 0 0 8									
10	D 0 0 9									
11	D 0 1 0									
12	D 0 1 1									
13	K 0 4 8									
14	K 0 4 9									
15	K 0 5 0									
16	K 0 5 1									
17	K 0 5 2									
18	W T 0 1									
19	W T 0 2									
20	W P 0 1									
21	W P 0 2									
22	W P 0 3									
23	W C 0 1									
24	W C 0 2									
25	W 0 0 1									
26	F 0 0 1	✓								✓



NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

W	A	D	0	0	0	8	1	2	9	1	7
---	---	---	---	---	---	---	---	---	---	---	---

L I N E	A.	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEAS- URE (enter code)	D. PROCESSES	
	DANGEROUS WASTE NO. (enter code)			1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))

2	F	0	0	2
3	F	0	0	3
4	F	0	0	4
5	F	0	0	5
6	F	0	0	6
7	D	0	1	8
8	D	0	1	9
9	D	0	2	1
10	D	0	2	2
11	D	0	2	3
12	D	0	2	4
13	D	0	2	5
14	D	0	2	6
15	D	0	2	7
16	D	0	2	8
17	D	0	2	9
18	D	0	3	0
19	D	0	3	2
20	D	0	3	3
21	D	0	3	4
22	D	0	3	5
23	D	0	3	6
24	D	0	3	7
25	D	0	3	8
26	D	0	3	9



NOTE: Photocopy this page before completing if you have more than 25 wastes to list.

I.D. NUMBER (enter from page 1)											
W	A	D	0	0	0	8	1	2	9	1	7

DESCRIPTION OF DANGEROUS WASTES (continued)

L I N E N O E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
OILS & COOLANT EMULSIONS (continued)					
2	D 0 4 0				
3	D 0 4 1				
4	D 0 4 2				
5	D 0 4 3				
6	F 0 3 9				
7	K 0 0 1	↓		↓	
8	F 0 3 7				
9	F 0 3 8	↓		↓	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					



Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

I.D. NUMBER (enter from page 1)  
W A D 0 0 0 8 1 2 9 1 7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
INDUSTRIAL WASTEWATERS					
2		84,020,000 (a)	P	S 0 2 T 0 1	(a) Estimated annual quantity
3	D 0 0 1				applies to entire waste
4	D 0 0 2				stream, not each waste code.
5	D 0 0 4				
6	D 0 0 5				
7	D 0 0 6				
8	D 0 0 7				
9	D 0 0 8				
10	D 0 0 9				
11	D 0 1 0				
12	D 0 1 1				
13	K 0 4 8				
14	K 0 4 9				
15	K 0 5 0				
16	K 0 5 1				
17	K 0 5 2				
18	W T 0 1				
19	W T 0 2				
20	W P 0 1				
21	W P 0 2				
22	W P 0 3				
23	W C 0 1				
24	W C 0 2				
25	W 0 0 1				
26	F 0 0 1				



Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

I.D. NUMBER (enter from page 1)											
W	A	D	0	0	0	8	1	2	9	1	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
INDUSTRIAL WASTEWATERS (continued)					
2	F 0 0 2				
3	F 0 0 3				
4	F 0 0 4				
5	F 0 0 5				
6	F 0 0 6	↓		↓	
7	D 0 1 8				
8	D 0 1 9				
9	D 0 2 1				
10	D 0 2 2				
11	D 0 2 3				
12	D 0 2 4				
13	D 0 2 5				
14	D 0 2 6				
15	D 0 2 7				
16	D 0 2 8				
17	D 0 2 9				
18	D 0 3 0				
19	D 0 3 2				
20	D 0 3 3				
21	D 0 3 4				
22	D 0 3 5				
23	D 0 3 6				
24	D 0 3 7				
25	D 0 3 8				
26	D 0 3 9	↓		↓	



Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 25 wastes to list.

I.D. NUMBER (enter from page 1)											
W	A	D	0	0	0	8	1	2	9	1	7

DESCRIPTION OF DANGEROUS WASTES (continued)

L I N E	A. DANGEROUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEAS- URE (enter code)	D. PROCESSES									
	1. PROCESS CODES (enter)						2. PROCESS DESCRIPTION (if a code is not entered in D(1))									
INDUSTRIAL WASTEWATERS (continued)																
2	D	0	4	0												
3	D	0	4	1												
4	D	0	4	2												
5	D	0	4	3												
6	F	0	3	9												
7	K	0	0	1	✓			✓								
8	F	0	3	7												
9	F	0	3	8												
10	F	0	3	2												
11	F	0	2	3												
	F	0	3	4												
13	F	0	3	5	✓			✓								
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
26																



Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

 I.D. NUMBER (enter from page 1)  
 W A D 0 0 0 8 1 2 9 1 7

## IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
INDUSTRIAL WASTE SLUDGE					
2		8,080,000(a)	P	S 0 2 T 0 1	(a) Estimated annual quantity
3	D 0 0 1				applies to entire waste
4	D 0 0 2				stream, not each waste code.
5	D 0 0 4				
6	D 0 0 5				
7	D 0 0 6				
8	D 0 0 7				
9	D 0 0 8				
10	D 0 0 9				
11	D 0 1 0				
12	D 0 1 1				
13	K 0 4 8				
14	K 0 4 9				
15	K 0 5 0				
16	K 0 5 1				
17	K 0 5 2				
18	W T 0 1				
19	W T 0 2				
20	W P 0 1				
21	W P 0 2				
22	W P 0 3				
23	W C 0 1				
24	W C 0 2				
25	W 0 0 1				
26	F 0 0 1				



**NOTE:** Photocopy this page before completing if you have more than 26 wastes to list.

I.D. NUMBER (enter from page 1)											
W	A	D	0	0	0	8	1	2	9	1	7

## IV. DESCRIPTION OF DANGEROUS WASTES (continued)

L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES	
	1. PROCESS CODES (enter)			2. PROCESS DESCRIPTION (if a code is not entered in D(1))	

## INDUSTRIAL WASTE SLUDGE (continued)

2	F	0	0	2
3	F	0	0	3
4	F	0	0	4
5	F	0	0	5
6	F	0	0	6
7	D	0	1	8
8	D	0	1	9
9	D	0	2	1
10	D	0	2	2
11	D	0	2	3
12	D	0	2	4
13	D	0	2	5
14	D	0	2	6
15	D	0	2	7
16	D	0	2	8
17	D	0	2	9
18	D	0	3	0
19	D	0	3	2
20	D	0	3	3
21	D	0	3	4
22	D	0	3	5
23	D	0	3	6
24	D	0	3	7
25	D	0	3	8
26	D	0	3	9



Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 25 wastes to list.

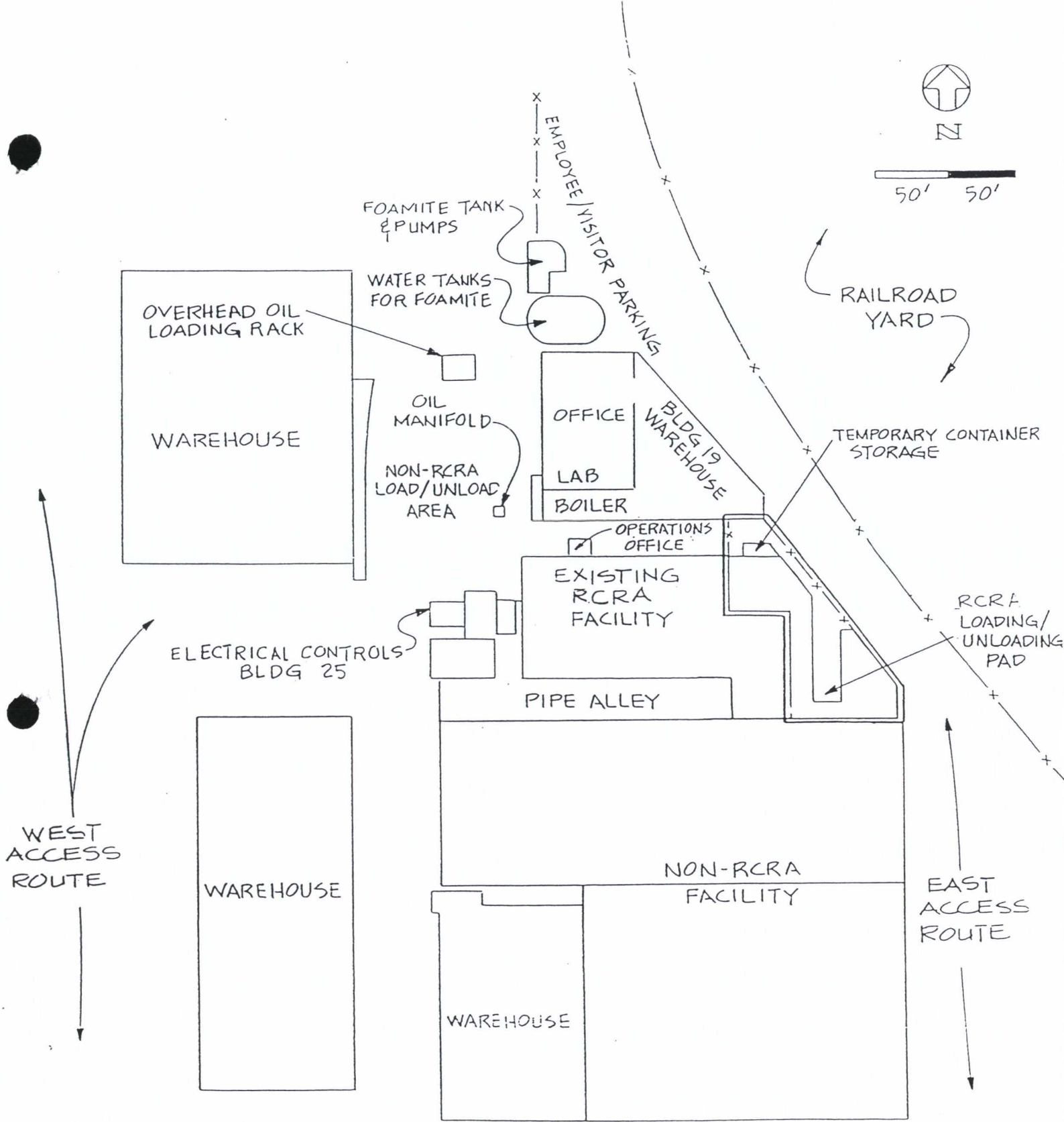
I.D. NUMBER (enter from page 1)

W A D 0 0 0 8 1 2 9 1 7

## DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
INDUSTRIAL WASTE SLUDGE (continued)					
2	D 0 4 0				
3	D 0 4 1				
4	D 0 4 2				
5	D 0 4 3				
6	F 0 3 9				
7	K 0 0 1	↓		↓	
8	F 0 3 7				
9	F 0 3 8				
10	F 0 3 2				
11	F 0 2 3				
	F 0 3 4				
13	F 0 3 5	↓		↓	
14					
15					
16					
17					
18					
19					
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21					
22					
23					
24					
25					

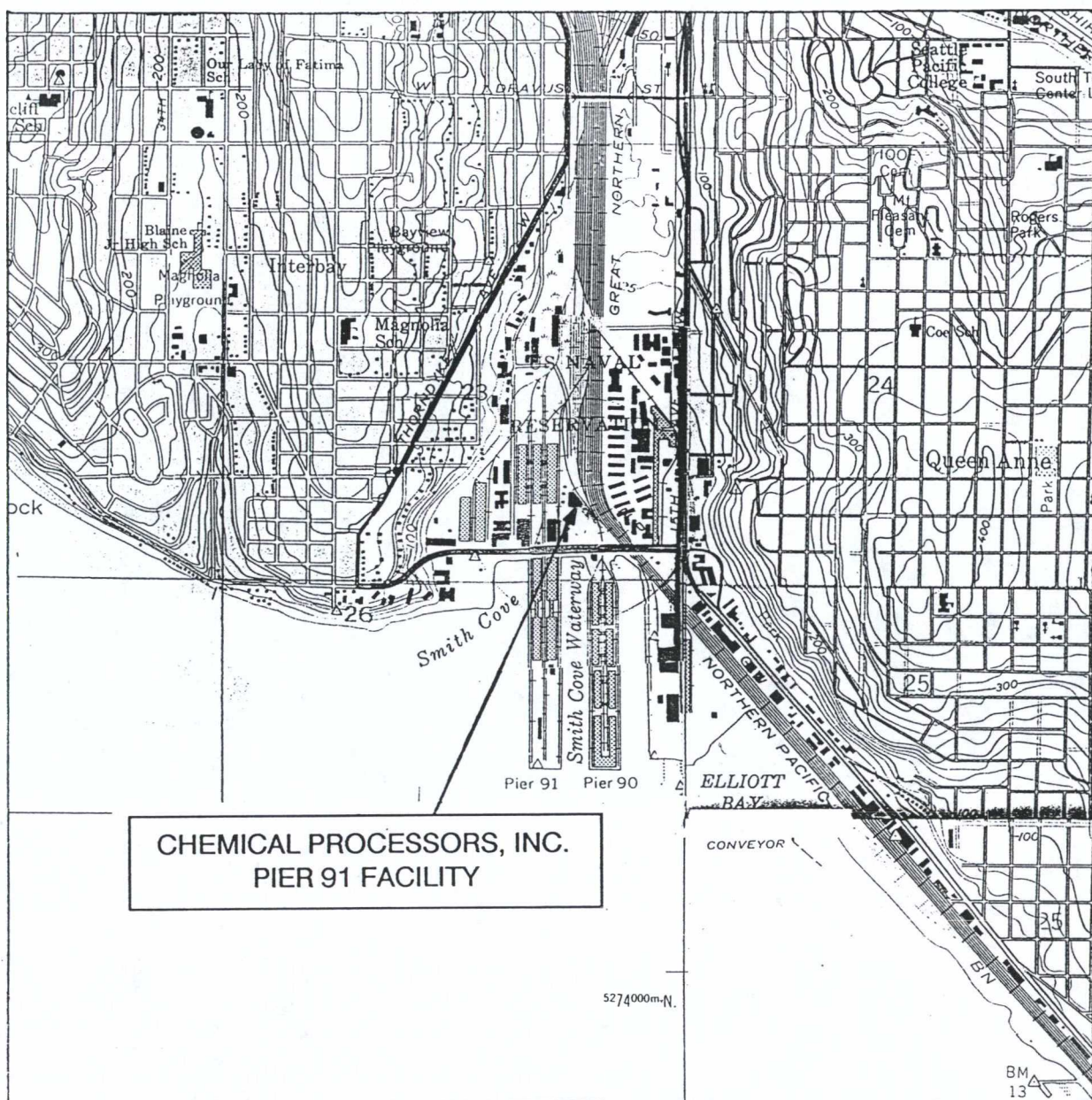




W. GARFIELD ST. VIADUCT

Chemical Processors, Inc. Pier 91 Facility
Pier 91 Facility Site Plan
Section V



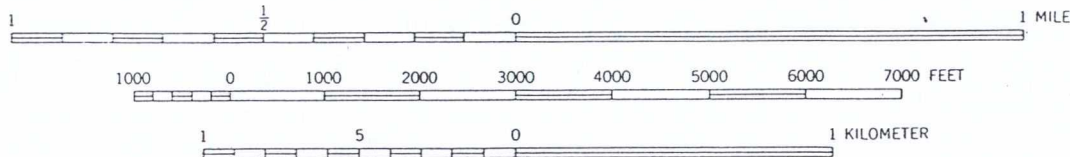


CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

5274000m.N.

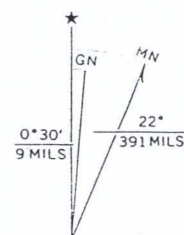
BM  
13

SCALE 1:24000



CONTOUR INTERVAL 25 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET



UTM GRID AND 1973 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

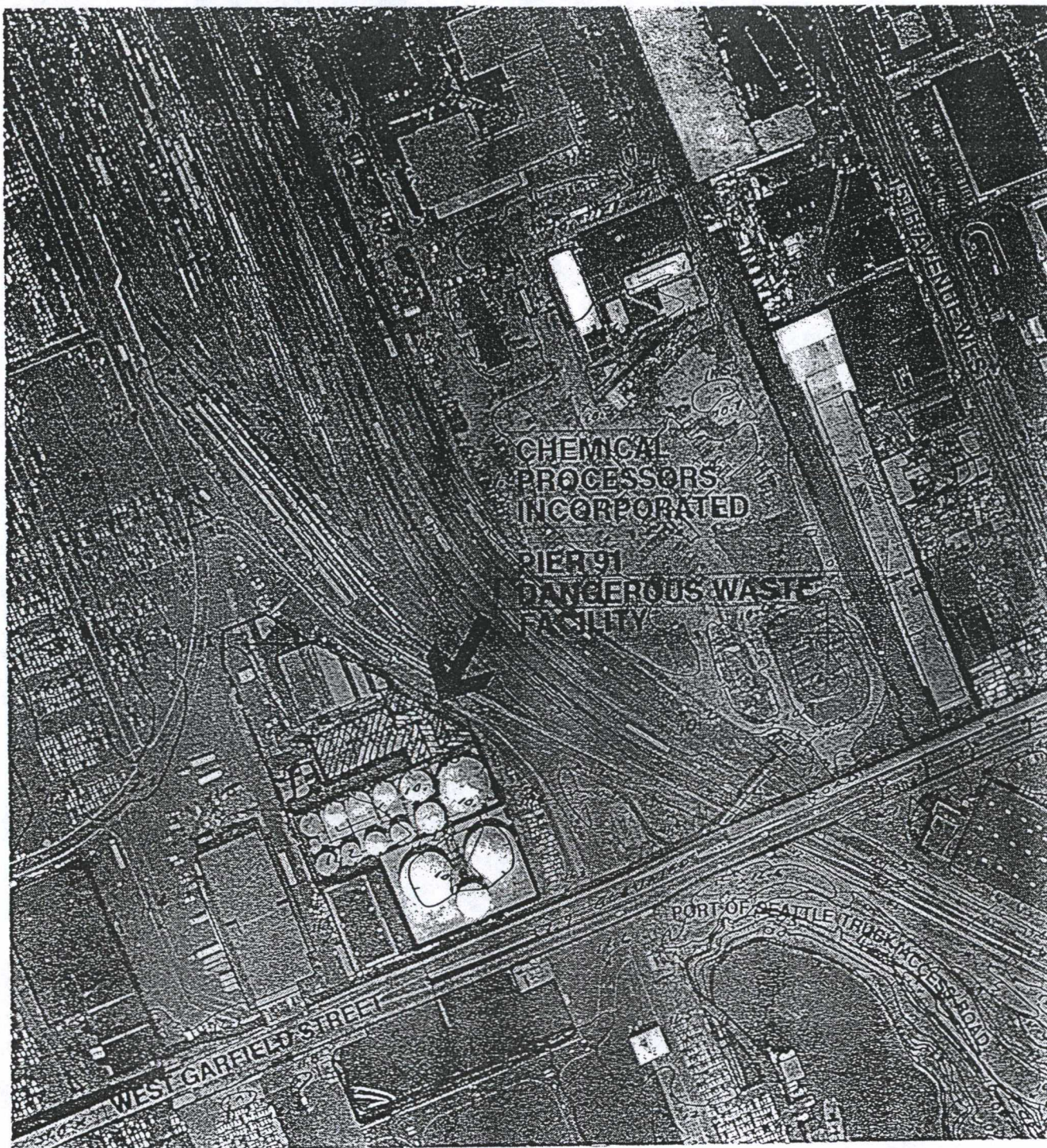
Photocopied from USGS Maps-  
Shilshole Bay Quadrangle,  
Seattle North Quadrangle and  
Seattle South Quadrangle  
Lat. 47 38'08"N Long. 122 22'50"W

Chemical Processors, Inc.  
Pier 91 Facility

Location Map

Section IX







Aerial Photography Dated June 1987

Revised, December 1990



-  Proposed RCRA Facility
-  Existing RCRA Facility

# Chemical Processors, Inc. Pier 91 Facility

## Section VI





# ION OF DANGEROUS WASTES (continued)

PAGE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 3

## FACILITY DRAWING

If existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

## PHOTOGRAPHS

If existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

## I. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

47 38 08 N

LONGITUDE (degrees, minutes, & seconds)

122 22 50 W

## II. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

PORT OF SEATTLE

2. PHONE NO. (area code & no.)

206 382 3370

3. STREET OR P.O. BOX

P.O. BOX 1209

4. CITY OR TOWN

SEATTLE

5. ST.

WA

6. ZIP CODE

98111

## OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (print or type)

John G. Belford

SIGNATURE

DATE SIGNED

## OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (print or type)

Michael P. Keller,  
Vice President, Operations

SIGNATURE

*Michael P. Keller*

DATE SIGNED

11/22/91











SECTION B

FACILITY DESCRIPTION AND GENERAL PROVISIONS



## SECTION B. FACILITY DESCRIPTION AND GENERAL PROVISIONS

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SECTION B. FACILITY DESCRIPTION AND GENERAL PROVISIONS

B1.0 GENERAL FACILITY DESCRIPTION

Revised, December 1990, July 1991, November 1991

40 CFR 270.14(b)(1)

WAC 173-303-806(4)(a)(i)

USEPA/Ecology Facility Identification Number: WAD000812917

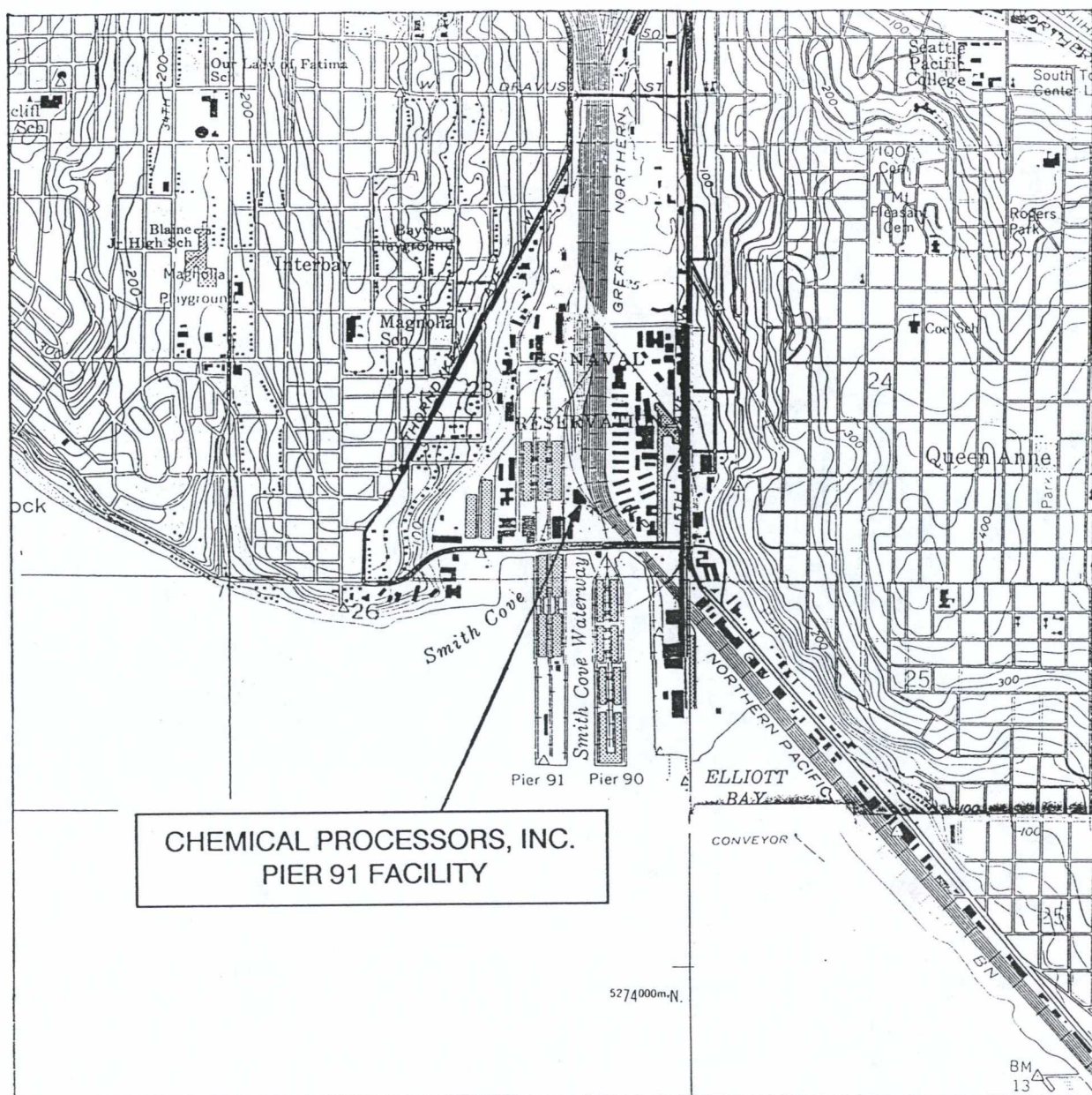
Operator's Name: Chemical Processors, Inc.  
Address: 2203 Airport Way South, Suite 400  
Seattle, Washington 98134  
Telephone Number: (206) 223-0500

Plant Name: Chemical Processors, Inc.  
Pier 91 Facility  
Address: 2001 West Garfield Street  
Pier 91, Port of Seattle  
Seattle, Washington 98119  
Telephone Number: (206) 284-2450

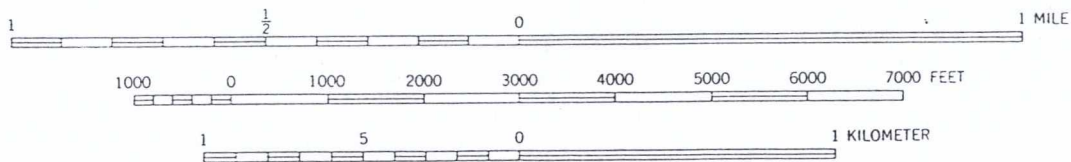
The Chemical Processors, Inc. Pier 91 Facility is located at 2001 West Garfield Street, Pier 91 in the Port of Seattle, King County, Washington. Refer to Figure B1-1, Pier 91 Facility Location Map. Land use for the facility is permitted and zoned by the City of Seattle as General Industrial Zone 1, with a 45' height limit (IG1 U/45).

The Pier 91 Facility is a 4-acre site used by Chemical Processors, Inc. for waste oil recovery and blending and for tank storage and treatment of dangerous wastes. The existing dangerous waste (RCRA-regulated) facility, located on 0.5 acres, consists of a tank system with adequate secondary containment and a centrifuge. The proposed dangerous waste (RCRA-regulated) area, located on 0.2



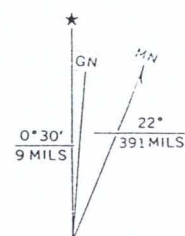


SCALE 1:24000



CONTOUR INTERVAL 25 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET



UTM GRID AND 1973 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

Photocopied from USGS Maps-  
Shilshole Bay Quadrangle,  
Seattle North Quadrangle and  
Seattle South Quadrangle  
Lat. 47 38'08"N Long. 122 22'50"W

Chemical Processors, Inc.  
Pier 91 Facility

**Location Map**

Figure B1-1

Revised, December 1990



acres, will include a temporary (90-day) container storage area for waste generated onsite and a truck loading/unloading pad. This Part B Permit Application applies to the existing and proposed dangerous waste areas within the Pier 91 Facility.

Typical wastestreams processed at the Pier 91 Facility include oil and coolant emulsions, industrial wastewaters including alkalis, dangerous waste fuels and industrial waste sludges. Contaminants in the wastestreams may include phenolics, metals, and solvents. In general, these wastestreams are treated in tanks by oxidation, reduction, demulsification, precipitation, neutralization, and heat treatment processes.

#### B1.1 Facility Owner/Operator

Revised, January 1990

Chemical Processors, Inc. operates five industrial and dangerous waste treatment and storage facilities in Washington State. The company was founded in Seattle in 1970 to provide an outlet for proper treatment, recycling, and storage for dangerous wastes. Chemical Processors, Inc. facilities offer solvent and waste oil recycling and bulk or containerized waste treatment services to industries throughout the Pacific Northwest. The company's corporate office is located at 2203 Airport Way South, Suite 400 in Seattle, Washington.

#### B1.2 Pier 91 Facility History

Revised, January 1990

The Pier 91 Facility is located in an area created during fill projects occurring between approximately 1915 and 1920. The source of fill material is unknown, but may have included railroad ballast and cinders, or soil removed



during the Denny Regrade project. The tank system currently leased by Chemical Processors, Inc. was first constructed in approximately 1926, for use by California Petroleum Company. Other oil companies may have leased the property in subsequent years through 1941. From the 1920s through 1941, the property was owned by the Port of Seattle Commission.

In December 1941, the U.S. Navy took possession of the tank system and all surrounding Port of Seattle property (now referred to as the Terminal 91 area). The area was used by the Navy as a major shipping and staging point during World War II, the Korean War, and the Vietnam War. The tank system was used primarily as a fuel and lubricating oil transfer station. The Navy maintained possession of the Terminal 91 area until the early 1970s. During the time of Navy ownership, the area was also used by the U.S. Coast Guard and the National Oceanic and Atmospheric Administration (NOAA).

In approximately 1972, the Navy declared the Terminal 91 property as surplus. The property was re-acquired by the Port of Seattle in 1976, and has remained in its possession since that time. In 1977, many Navy buildings adjacent to and beyond the tank system area were demolished to make room for other Port of Seattle operations.

Chemical Processors, Inc. leased the tank system property in June 1971. A major portion of the Facility's tank system has been subleased to Pacific Northern Oil Company (Panoco) since the early 1970s for use as a marine boiler fuel oil depot. The Chemical Processors, Inc. lease with the Port of Seattle includes piping between the tank system and berths on Pier 91, and berths used for ship loading/unloading. |



### B1.3 Plant Management

The Pier 91 Facility is operated by a Plant Manager who is responsible for the day-to-day management of all operations at the plant. The Plant Manager's duties include: managing personnel requirements, scheduling and coordinating plant production and material flow, developing job safety practices, ensuring day-to-day compliance with all applicable regulations and permits, maintaining all required documents and records, and implementing and coordinating Contingency Plan procedures. The Plant Manager constantly interacts with the corporate staff and is supervised by a Division Manager.

Plant operations are directed by a Plant Supervisor who reports to the Plant Manager and is responsible for ensuring the proper handling and treatment of all wastes and treatment byproducts in compliance with company policy and local, state, and federal regulations. The Plant Supervisor coordinates work between the different shifts and supervises Shift Foremen and production personnel which include Hazardous Waste Technicians. The Shift Foremen also supervise Hazardous Waste Technicians. They are responsible for all waste management activities performed on the shift.

The Hazardous Waste Technicians perform a variety of duties related to receiving, processing and shipping hazardous materials, maintain all plant facilities, machinery and equipment and perform plant operational duties as requested.

### B1.4 Summary of Waste Types Listed in the Part A

Wastes accepted at the Pier 91 Facility are listed in the facility Part A Permit Application and are discussed in detail in Section C, Waste Characteristics. The types and



quantities of wastes are summarized in Table B1-1. These waste types and quantities reflect existing and planned operations.

TABLE B1-1. TYPES AND QUANTITIES OF DANGEROUS WASTES LISTED ON THE PIER 91 FACILITY PART A

WASTE CATEGORY (a)	ESTIMATED ANNUAL QUANTITY (LBS/YR)
Oil and Coolant Emulsions	102,000,000
Industrial Wastewaters including Alkalis	84,020,000
Industrial Waste Sludges	8,080,000

(a) Waste categories derived from facility operating history.

B1.5 Tank Storage and Treatment Operations  
Revised, January 1990, July 1990, December 1990,  
November 1991

Dangerous waste operations at the Chemical Processors, Inc. Pier 91 Facility occur on 0.7 acres. The dangerous waste tank system is located on 0.5 acres. The existing area consists of a tank system with adequate secondary containment. A proposed contained truck loading/unloading pad and a temporary (90-day) container storage area used to store wastes generated onsite will be constructed on an 0.2 acre site adjacent to the existing tank system. Figure B1-2, Pier 91 Facility Site Plan, shows the existing and planned location of these operations. Tank capacities



and usages are given in Table B1-2, Storage and Treatment Tanks.

The existing tank system secondary containment structures consist of bermed concrete pad with sumps for collecting precipitation and spills. Accumulated liquids will be removed in a timely manner and directed to an appropriate storage or treatment tank. The containment pad will be coated with a chemical resistant coating suitable for the wastes stored. Refer to Section D, Process Information, for a detailed description of the tank systems.

Wastes intended for tank storage enter the facility in tanker trucks. An initial material screening is performed to determine the appropriate storage vessel for the waste. (Refer to Section C2.0, Waste Analysis Plan). Trucks are unloaded within the truck loading/unloading pad designated for dangerous wastes.

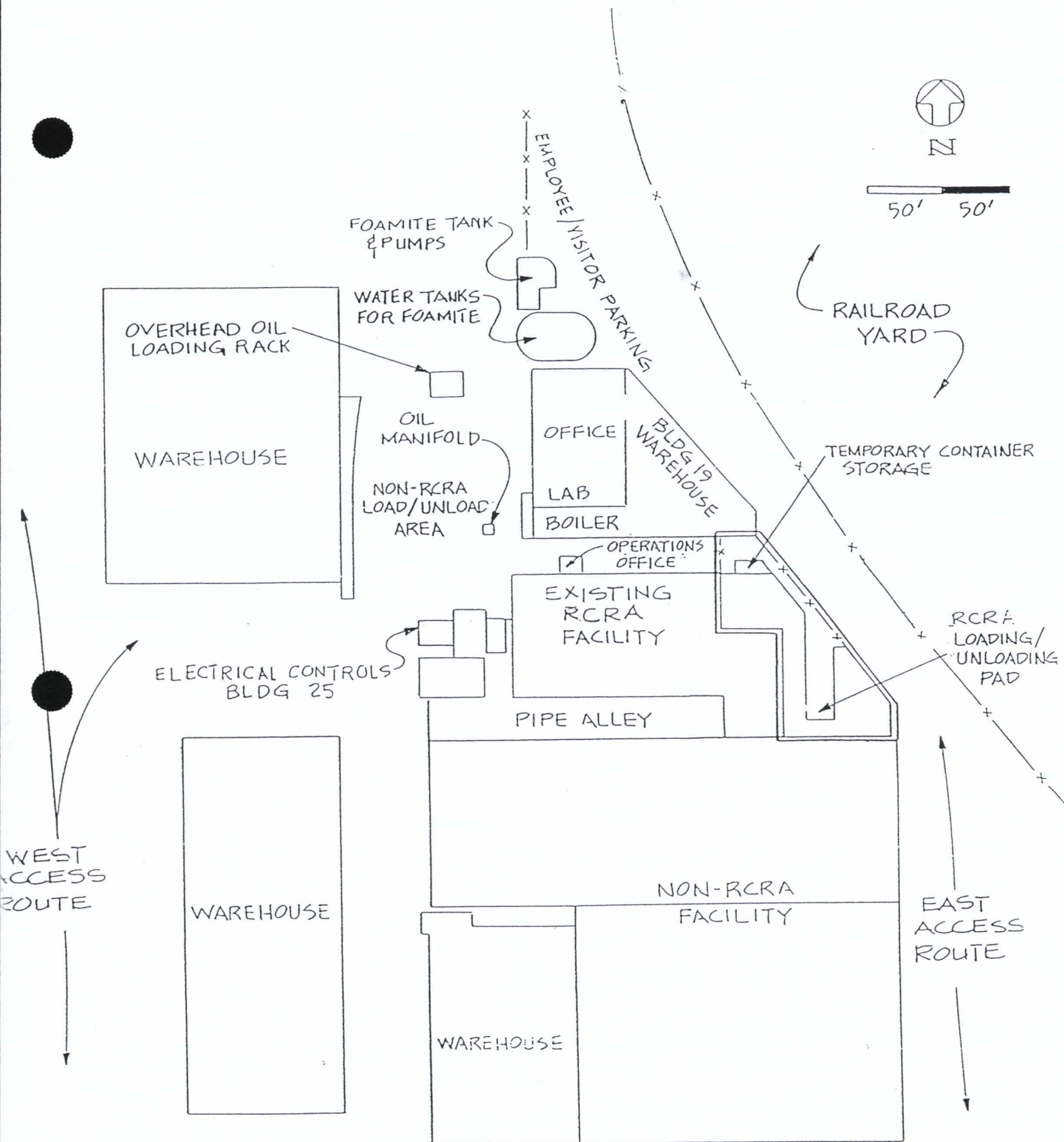
The temporary (90-day) container storage area (see Figure B1-2) is used for storing sludges generated on site during tank treatment operations. These wastes will be stored for less than 90 days; therefore, the temporary container storage area is not discussed in this permit application.

#### B1.6 Detailed Process/Activity Descriptions

Revised, December 1990

This section describes the processes/activities that Chemical Processors, Inc. performs to manage wastes at the Pier 91 Facility.





W. GARFIELD ST. VIADUCT

Chemical Processors, Inc.  
Pier 91 Facility

**Pier 91 Facility  
Site Plan**

Figure B1-2



TABLE B1-2. WASTE STORAGE AND TREATMENT TANKS

Revised, Jan 1990, Jul 1990, Sep 1990, Dec 1990, Jul 1991, Nov. 1991

TANK NO.	TANK NAME/USAGE	STATUS	WORKING VOLUME (GAL) PER TANK	TOTAL VOLUME (GAL) PER TANK
2307, 2308, 2309, 2310	Heated Treatment/ Storage	Planned	14,100 ea.	14,810 ea.
2313	Heated Treatment/ Storage	Existing (Formerly tank 164)	14,100	14,810
2501	Treatment Chemical/ Storage (not RCRA- regulated)	Existing	5,287	5,874 <sup>(1)</sup>
2701, 2705, 2707	Industrial Waste Water Treatment/ Storage	Existing (Formerly tanks 105, 109, & 111)	44,657 ea.	49,485 ea.
2702, 2704	Industrial Waste Water Treatment/ Storage	Planned	91,727 ea.	96,555 ea.
2703 2708	Waste Oil Treatment/ Storage Tank	Existing (Formerly tanks 107, 112)	44,657 ea.	49,485 ea.
2706	Oil/Coolant Treatment and Storage	Existing (Formerly tank 110)	44,657	49,485
2709, 2710	Waste Oil Storage	Planned	52,832 ea.	55,940 ea.

-----  
 EXISTING TANK STORAGE CAPACITY = 311,720 GAL  
 PLANNED TANK STORAGE CAPACITY = 364,230 GAL

TOTAL TANK STORAGE CAPACITY (S02) = 675,950 GAL

(1) Tank capacity not included in total for maximum waste inventory for reason indicated in parentheses.



Treatment of wastes occurs in tanks and includes chemical and physical treatment. The tanks in which the following treatment processes will occur are described in Table B1-2, Storage and Treatment Tanks.

Chemical Processors, Inc. utilizes the following treatment processes at the Pier 91 Facility:

- Heat Treatment
- Chemical Oxidation
- Chemical Precipitation
- Chemical Reduction
- Neutralization
- Dewatering
- Centrifugation
- Clarification
- Decanting
- Flocculation
- Sedimentation
- Demulsification

Waste consolidation occurs in tanks prior to treatment. Materials received are analyzed and compatible wastes are consolidated. Wastes generated on site such as sludges are also consolidated for off-site disposal in tanks, tankers or containers.

The preliminary designs for equipment used for these processes are presented in Section D.

#### B1.6.1 Process Definitions

Revised, January 1990, December 1990

Treatment processes used at the Chemical Processors, Inc. Pier 91 Facility are described in this section. The



treatment processes are currently used at the existing tank system and will continue to be used once the proposed tank system is constructed.

#### Heat Treatment

Heat is used to augment the oxidation of phenolic wastestreams. Heat is also applied to wastestreams which are emulsified, such as those containing detergents, to aid in demulsification of the waste.

#### Chemical Oxidation

Chemical oxidation refers to a reaction in which a substance loses electrons (is oxidized) by addition of an oxidizing agent (gains electrons or is reduced). Oxidation and reduction reactions always occur simultaneously. Oxidation is used at the Pier 91 Facility to destroy phenolic compounds. Oxidizing agents which can be used include hydrogen peroxide, bleach, chlorine dioxide, potassium permanganate, calcium chlorate and ozone. Ferrous sulfate or aluminum sulfate can be used as catalysts for oxidation. Heat may be used to augment oxidation.

#### Chemical Precipitation

The term chemical precipitation refers to both the primary step of forming a chemical precipitate and follow-up operations that separate the solid precipitate from the liquid. The process used at Pier 91 involves introducing precipitating agents and flocculants, settling and decanting. It is used to break emulsions and to remove metal contaminants.

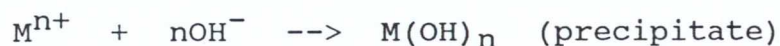
Aluminum sulfate ( $\text{Al}_2(\text{SO}_4)_3$ ), ferric chloride ( $\text{FeCl}_3$ ) and sodium hydroxide ( $\text{NaOH}$ ) are the major treatment chemicals



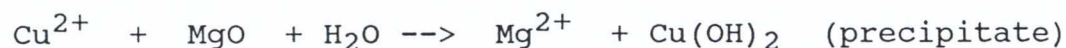
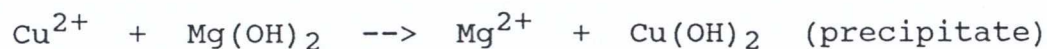
used for demulsification by precipitation and flocculation. The reaction is described in more detail later.

Chemical precipitation is applied to metal-containing wastes to chemically convert metal compounds from a soluble to an insoluble form and then to remove the precipitate by settling and decanting. This process is aided by flocculation.

The general process chemistry for hydroxide precipitation, which is used at the Pier 91 Facility for metal precipitation, follows.



Sodium hydroxide (NaOH), calcium hydroxide (Ca(OH)<sub>2</sub>), magnesium hydroxide (Mg(OH)<sub>2</sub>) and magnesium oxide (MgO) are some of the precipitating agents used. For example:



A variety of other precipitating agents may be used including ferrous sulfate, carbonate salts and lime (calcium hydroxide).

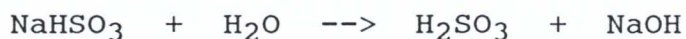
#### Chemical Reduction

Chemical reduction is a process used at the Pier 91 facility for converting hexavalent chromium (Cr<sup>+6</sup>) to trivalent chromium (Cr<sup>+3</sup>) by addition of a reducing agent. The

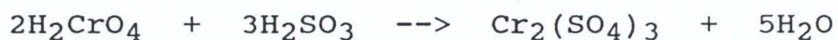


primary reducing agents used are sodium bisulfite ( $\text{NaHSO}_3$ ) or sodium metabisulfite ( $\text{Na}_2\text{S}_2\text{O}_5$ ). Other reducing agents, such as sodium borohydride, sulfur dioxide, ferrous sulfate and sodium thiosulfate may also be used.

Sodium bisulfite reacts with water to form sulfurous acid ( $\text{H}_2\text{SO}_3$ ):



The sulfurous acid reduces chromium ( $\text{Cr}^{+6}$ ):



The theoretical amount of sulfurous acid required to reduce a given amount of chromium can be calculated from this equation. The optimum efficiency of chromium reduction occurs at pH 2 to 3 with agitation of the mixture. Chromium ( $\text{Cr}^{+3}$ ) has a low solubility at a high pH, and can be precipitated as chromic hydroxide by the addition of sodium hydroxide or calcium hydroxide (lime).

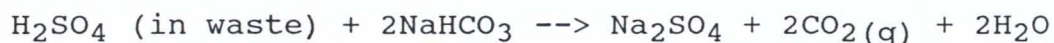
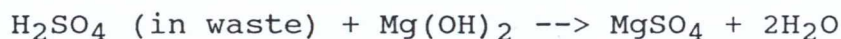
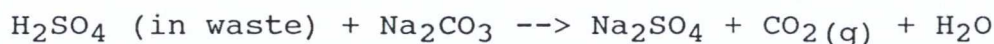
#### Neutralization

Neutralization occurs at the equivalence point of an acid-base reaction. The equivalence point is not necessarily attained at pH 7.0. A strong acid reacting with a weak base, will result in a pH less than 7.0, and a strong base reacting with a weak acid, will result in a pH greater than 7.0. The acid-base reaction is carried out by the addition of alkaline wastes, lime (calcium hydroxide), sodium carbonate, sodium bicarbonate, calcium carbonate, sodium hydroxide, sodium bisulfate or magnesium hydroxide for acids and acidic wastes, sulfuric acid or hydrochloric acid for bases.



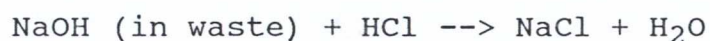
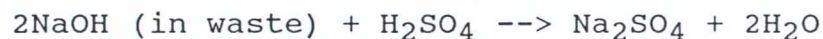
The general process chemistry for neutralization follows.

Acid Neutralization Examples:



Analogous reactions occur with other strongly ionized acids.

Base Neutralization Examples:



Analogous reactions occur with other strongly ionized bases.

Dewatering

Dewatering is a process to remove gross water from a suspension or sludge by addition of sodium silicate ( $2\text{Na}_2\cdot\text{SiO}_2$ ). This process is enhanced by the addition of cationic, anionic or nonionic polymers.



### Centrifugation

Centrifugation is a physical separation technique based on the application of centrifugal force to a mixture or suspension of materials of closely similar densities. This process is applied to sludges to remove water and oil from the solid material.

### Clarification

Clarification is the removal of bulk water from a dilute suspension of solids by gravity sedimentation, aided by flocculating agents. Flocculating agents used at the Pier 91 facility are described under flocculation. Inorganic salts such as calcium chloride ( $\text{CaCl}_2$ ) are added to "salt out" the water.

Salting out occurs by reducing the water-solubility of an organic solid or liquid. Organic wastes, when contaminated with detergents or surfactants become emulsified by the formation of micelles. Micelles are aggregates of soaps or surfactants with a hydrophobic interior and a hydrophilic exterior. Water-insoluble compounds reside in the inside and are thus suspended in water.

By adding a salt to an aqueous solution of such substances, ions of the dissolved salt attract and hold water molecules, thus making them less free to react with the organic contaminant. This results in decreasing the solubility of the contaminants with consequent separation or precipitation. Metals precipitation is enhanced by the mechanical action of the precipitating aggregates.

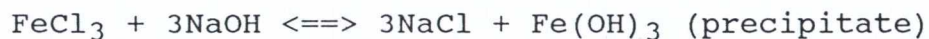


### Decanting

Decanting is the process of drawing off clarified liquid after the solids have been settled out. This method is used along with sedimentation to separate liquids from suspended solids.

### Flocculation

Flocculation is the combination or aggregation of suspended colloidal particles in such a way that they form small clumps. Flocculation is used in combination with precipitation and clarification to lower metal concentrations and to destroy emulsions. Flocculated particles may also be removed by gravity sedimentation or by filtration. Floccing agents used at the site include ferric chloride ( $\text{FeCl}_3$ ), aluminum sulfate ( $\text{Al}_2(\text{SO}_4)_3$ ) and sodium hydroxide ( $\text{NaOH}$ ). The chief reactions follow:



Other flocculants which may be used are ferric sulfate, sulfides, polysulfides, dithiocarbamate and synthetic polyelectrolytes.

### Sedimentation

Sedimentation involves the settling out by gravity of solid particles suspended in a liquid. This method is used in water clarification.



### Demulsification

Demulsification is the process of "breaking" an unwanted emulsion, especially water-in-oil types. An emulsion is a stable mixture of 2 or more immiscible liquids held in suspension by small amounts of substances called emulsifiers. Detergents and wetting agents are examples of emulsifiers. Emulsifiers work in either of 2 ways: 1) They coat the surface of the dispersed fat or oil particles preventing them from combining (refer to Clarification) and 2) they reduce the surface tension at the interface of the suspended particles because of the solubility properties of their molecules.

Chemical Processors, Inc. Pier 91 Facility uses a combination of heat treatment, chemical precipitation, dewatering, clarification, flocculation and oxidation for demulsification.

#### B1.6.2 Process Descriptions by Wastestream

Revised, July 1990, December 1990, May 1991, November 1991

The processes described in Section B1.6.1 are applied to typical incoming wastestreams as described below. Refer to Process Flow Diagrams, Figures B1-3 through B1-5. The process tolerance limits/process parameters are identified by number on the process diagrams and are listed in Table B1-3. The treatment processes are described according to wastestream as follows:

- Oil and Coolant Emulsions
- Industrial Wastewaters Including Alkalies
- Industrial Waste Sludges

Contaminants may include phenolics, metals and solvents.



TABLE B1-3. PROCESS TOLERANCE LIMITS/PROCESS PARAMETERS  
Revised, July 1990, December 1990, November 1991

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TEST NUMBER (a,b)	PROCESS TOLERANCE LIMIT/PROCESS PARAMETERS
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- |   |   |
|---|---|
| 1 | Fingerprint test<br>a) pH (Reject if <2)<br>b) Cr <sup>+6</sup> (positive or negative)<br>c) Phenolics (positive or negative;<br>200,000 ppm or 20% upper limit)<br>d) Flash point (Return to generator<br>or off-site disposal if <100°F)<br>e) Physical Description<br>f) Compatibility.<br>g) % Solids |
| 2 | Trial Treatment   |
| 3 | Analyze for Cr <sup>+6</sup> . (positive or negative)   |
| 4 | Test for phenolics. No upper limit.<br>Lower limit - discharge parameter.   |
| 5 | Test for discharge parameters.<br>Limits - see Table B1-4.  |
| 6 | Clarity Check (positive or negative)  |
| 7 | pH Analysis -<br>7(a) to pH 2-4<br>7(b) to pH 3 to 11<br>7(c) to discharge limits   |
| 8 | Temperature (130 - 200°F)   |

- 
- a) Results of these tests determine the disposition of a wastestream throughout a given treatment process.
- b) Test numbers are referenced on process flow diagrams (Figures B1-3 through B1-5).
-



### Oil and Coolant Emulsions (Figure B1-3)

Incoming emulsified materials are analyzed for appropriate analytical parameters including a fingerprint analysis for phenolics, chromium, pH, flash point, compatibility, % solids and a physical description. Refer to Table B1-3, Process Tolerance Limits/Process Parameters. Phenolic emulsions are segregated from non-phenolic emulsions. Chromium wastes are also segregated.

After compatible wastestreams are consolidated they are sampled. An appropriate treatment method is determined by applying a Trial Treatment to the samples. Refer to Section C2.0, Waste Analysis Plan for a description of the analytical methods. If the wastestream has a flashpoint of less than 100°F, that waste is not unloaded at the facility. The generator, at that time, is notified and can either take back the waste or allow the waste to be transported to an off-site, RCRA-approved facility.

If the wastestream contains hexavalent chromium, it undergoes chemical reduction at an optimum pH of 2-4. If the wastestream contains phenolic contaminants it undergoes chemical oxidation at an optimum pH of 2-4.

The wastestream is then demulsified using the most appropriate combination of treatments based on the results of the Trial Treatment. The treatment includes heat treatment, chemical precipitation, dewatering, clarification and flocculation or various optimum combinations of these treatments.

Demulsification results in 3 phases: water, oil, and sludge. The water phase is neutralized, if necessary, and then analyzed for compliance with the discharge parameters (see



Table B1-4). If the water phase does not meet discharge limits, it is recirculated for further treatment as described in the industrial wastewater process, or it is sent off site to a RCRA-permitted treatment facility. If it meets discharge limits, it is transferred to the treated wastewater holding tanks prior to discharge.

The oily and sludge phases are transferred to sludge treatment (Figure B1-5) or transported to an off-site RCRA-permitted facility for appropriate treatment.

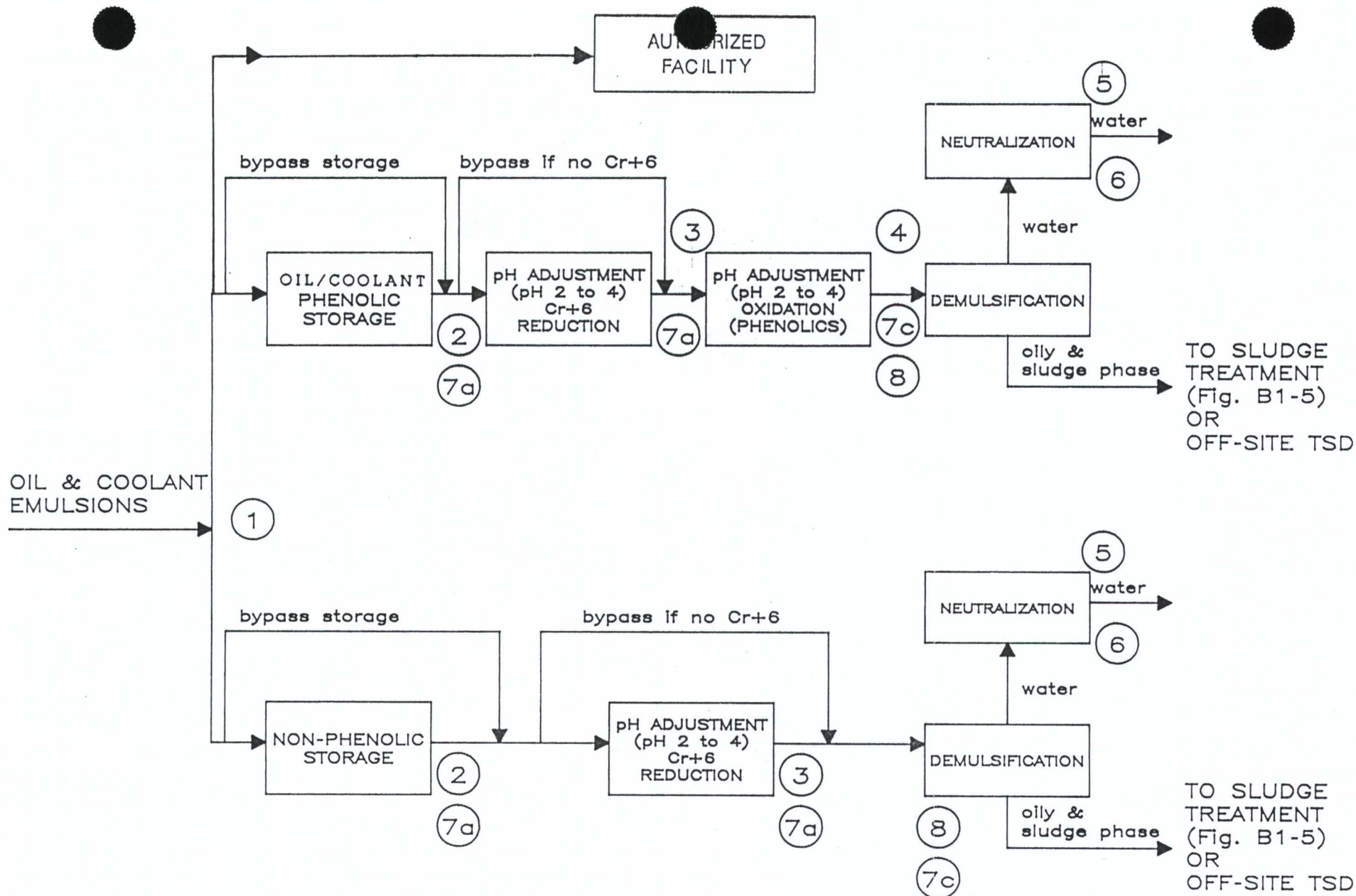
Industrial Wastewaters including Alkalis (Figure B1-4)  
Wastewaters and alkalis arrive at the facility and are analyzed for the appropriate analytical parameters. The initial analysis includes a fingerprint analysis for compatibility, pH, chromium, phenolics, % solids, a physical description and flash point. Refer to Table B1-3, Process Tolerance Limits/Process Parameters. Also refer to Section C2.0, Waste Analysis Plan for a description of these analyses. Wastewaters are segregated based on compatibility.

If the flashpoint is less than 100°F, the wastewater is rejected and not unloaded, the generator notified, and the waste returned to the generator or sent to an off-site RCRA-approved facility.

If phenolic contaminants are detected in the initial screening of a wastewater or alkali, they must be oxidized at an optimum pH of 2-4. The waste is then re-analyzed for phenolics to verify oxidation is complete.

If chromium is detected in the initial screening, the reducing agent is added until the chromium concentration





# Process Tolerance Limit/Process Parameter (Refer to Table B1-3)

\* Oil may be stored/blended for this use if it is determined to be a DW, as per WAC 173-303-510 and WAC 173-303-515.

Revised, December 1990

Chemical Processors, Inc.  
Pier 91 Facility

**Oil & Coolant Emulsions:  
Process Flow Diagram**

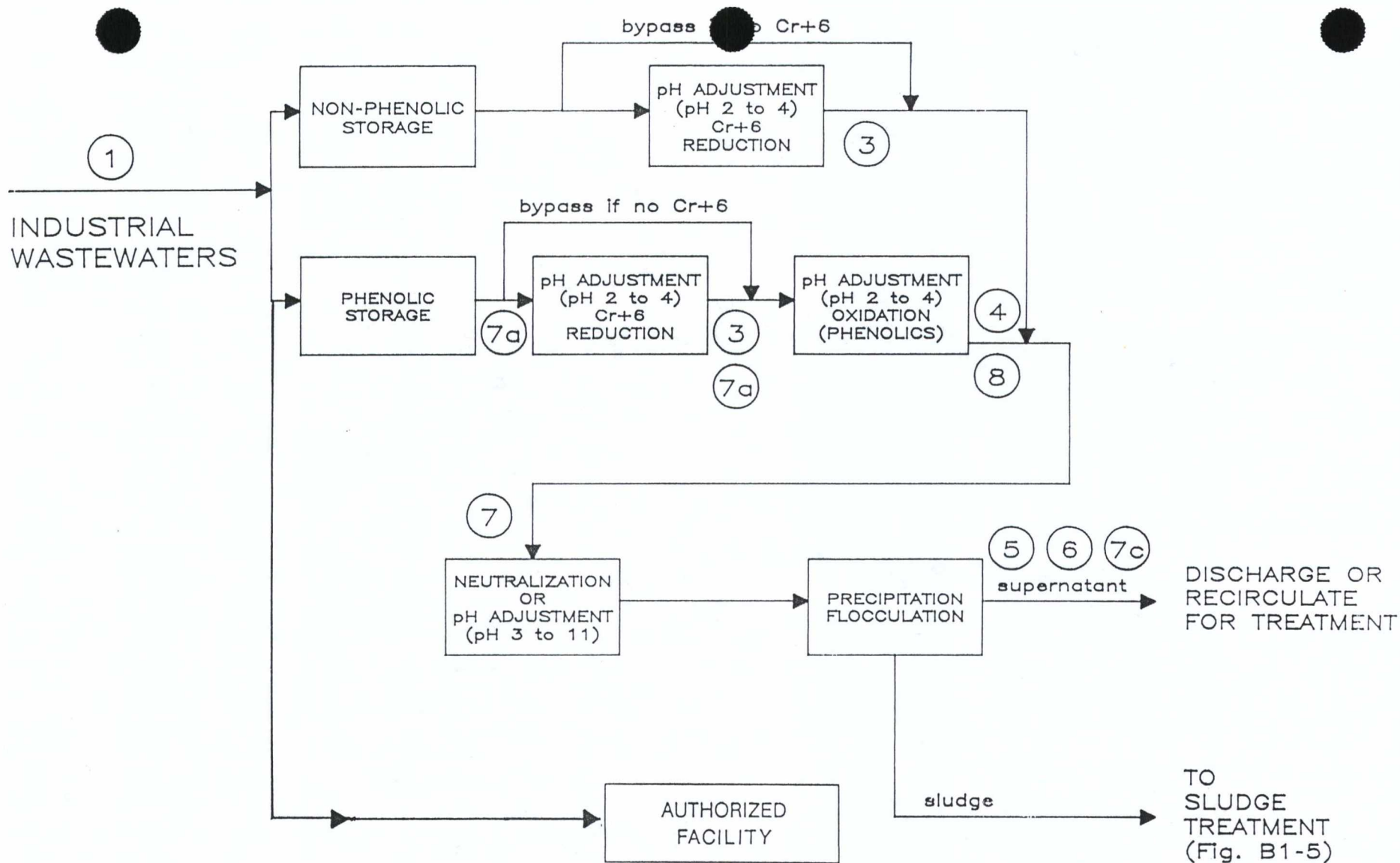
Figure B1-3



TABLE B1-4. SEWER DISCHARGE PARAMETERS AND LIMITS  
 NON-RCRA REGULATED (FOR INFORMATION PURPOSES ONLY)  
 Revised, December 1990

PARAMETER	DAILY MAXIMUM	
Total Oil & Grease	200 mg/l or ppm- 100 " or " polar 100 " or " non polar	
pH	5.5 to <12.5	
Total Heavy Metals	Daily Maximum	
	mg/l	lbs/d
Cadmium	3.0	2.48
Chromium Total	6.0	4.97
Copper	3.0	2.48
Lead	3.0	2.48
Nickel	6.0	4.97
Zinc	5.0	4.14
<u>Other Regulated Toxics</u>		
Cyanide, Total	2.0	
Phenols	800.0	
H <sub>2</sub> S (Soluble)	0.5	
H <sub>2</sub> S (Atmospheric)	0.5	





# Process Tolerance Limit/Process Parameter (Refer to Table B1-3)

\* Oil may be stored/blended for this use if it is determined to be a DW, as per WAC 173-303-510 and WAC 173-303-515.

Revised, December 1990

Chemical Processors, Inc.  
Pier 91 Facility

**Industrial Wastewaters:  
Process Flow Diagram**

Figure B1-4



meets the discharge parameters. Chemical reduction of hexavalent chromium ( $\text{Cr}^{+6}$ ) to trivalent chromium ( $\text{Cr}^{+3}$ ) occurs at an optimum pH of 2-4.

The wastestream is then neutralized, ideally to pH 5-9, to promote metals precipitation. The wastestream then undergoes metals precipitation and flocculation.

The supernatant is visually inspected for clarity and is analyzed for compliance with the discharge parameters (Table B1-4). If the supernatant meets the discharge limits, it is transferred to the treated wastewater holding tanks. If the supernatant exceeds the discharge limits, the material is recirculated for further treatment.

The sludge is transferred to sludge treatment (Figure B1-5).

#### Industrial Waste Sludges (Figure B1-5)

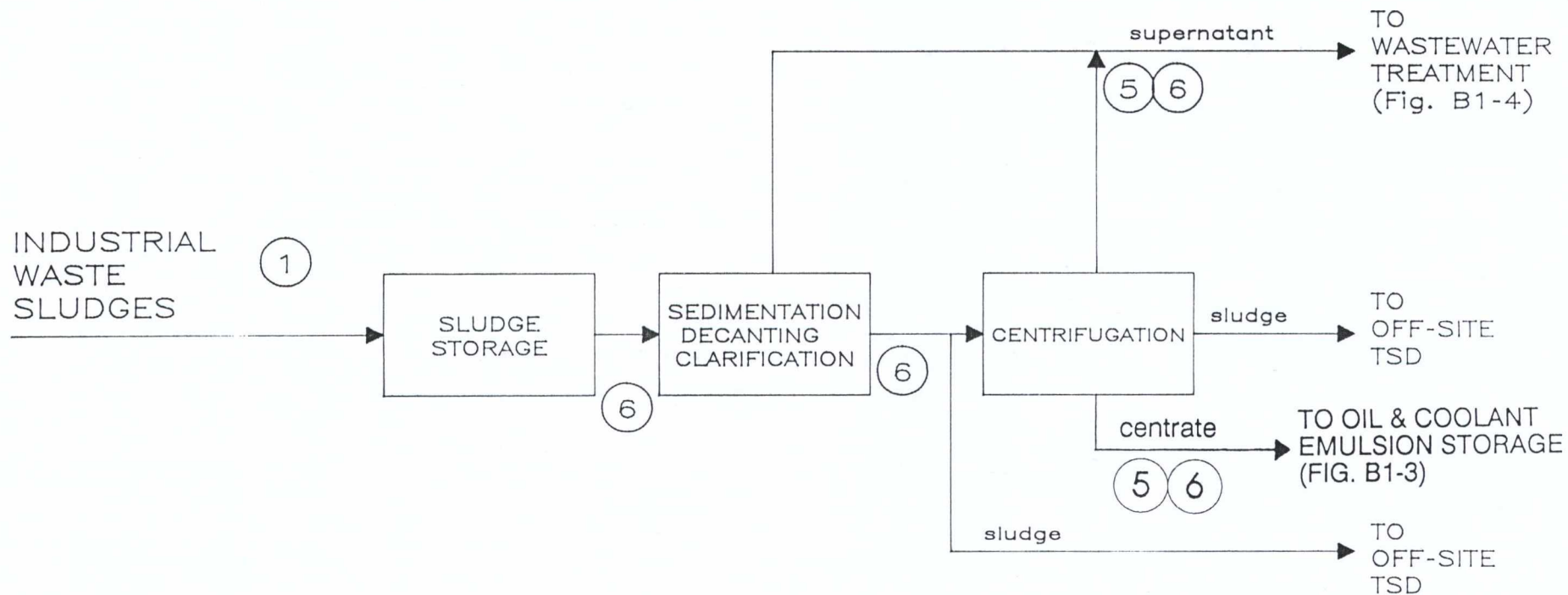
Wastewater sludges received at the facility or generated on site are analyzed for the appropriate analytical parameters. These include fingerprint analyses for compatibility, flash point, pH, chromium, phenolics, % solids and a physical description. Refer to Section C2.0, Waste Analysis Plan for a description of the analyses. The sludge is consolidated with other compatible sludges in one of the storage tanks. Oily sludges are segregated from non-oily sludges.

The sludge is consolidated for clarification, sedimentation and decanting. The sludge is either sent directly to an off-site RCRA-permitted facility for treatment and disposal, or centrifuged and then sent off-site for disposal.



Supernatant from both of these steps (clarification and centrifugation) is analyzed for compliance with the discharge parameters. If it meets the discharge criteria, it is transferred to the treated wastewater holding tanks. If it does not meet the discharge limits it is recirculated for further treatment. If oil and grease content is > 100 ppm, centrate generated will be sent to oil and coolant emulsion treatment.





# Process Tolerance Limit/Process Parameter (Refer to Table B1-3)

Revised, December 1990

Chemical Processors, Inc. Pier 91 Facility
<b>Industrial Waste Sludges: Process Flow Diagram</b>
Figure B1-5



## B2.0 TOPOGRAPHIC MAPS

Revised, January 1990, November 1991

40 CFR 270.14(b)(19)

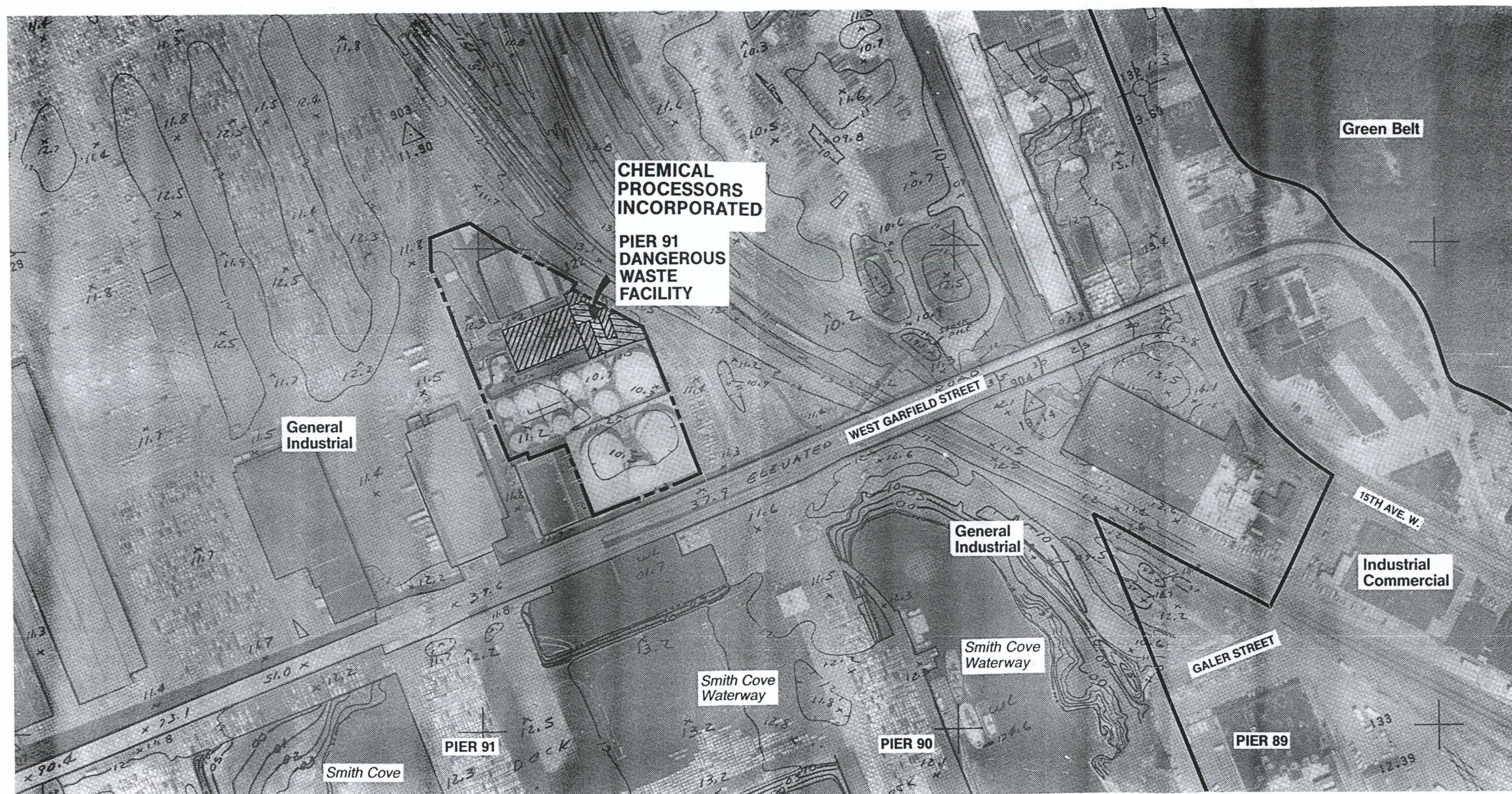
WAC 173-303-806(4)(a)(xviii)

The figures referenced in this section contain information required to describe topographic features at the Chemical Processors, Inc. Pier 91 Facility. Figures B2-1 through B2-7 depict features listed in the topographic map requirements cited above. Each figure in this section highlights certain features, including topographic characterization, adjacent land use, local wind patterns, stormwater drainage patterns, dangerous waste treatment and storage units, and sewer and fire control facilities. Individual figures were provided in order to reduce the amount of overlapping information presented on Figure B2-1, Topographic Map. The location of the Pier 91 Facility, in relation to the greater Seattle area, was previously depicted in Figure B1-1, Pier 91 Facility Location Map.

Figure B2-1, Topographic Map, depicts the legal boundaries of the Pier 91 Facility. Port of Seattle access routes between the facility and nearby public streets are also shown on Figure B2-1, Topographic Map. As required by WAC 173-303-806(4)(a)(xviii), Figure B2-1 and other figures in this section also include a map scale, map date, and north arrow.

Topographic information included on Figure B2-1 was obtained from aerial mapping conducted in June 1987. Contour intervals of 1 foot are depicted on the figure, with spot elevations indicated to the nearest 0.1 foot. All elevations shown are referenced to the National Geodetic Vertical Datum of 1929 (NGVD).





Aerial Photograph Dated June 1987

Limit of property leased by  
Chemical Processors, Inc.  
(identified for interim status)

Existing RCRA Facility  
Proposed RCRA Facility



0 100 200 400 feet

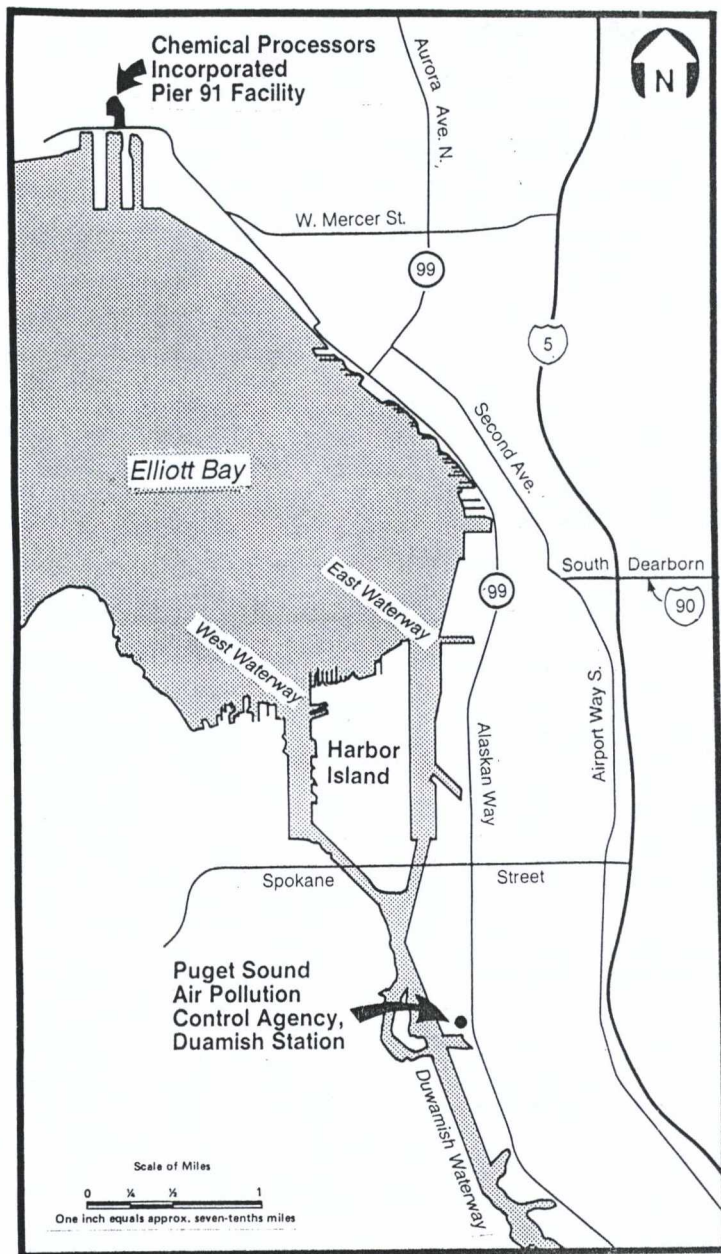
Revised, December 1990

**FIGURE B2-2**  
**Adjacent Land Use**  
Chemical Processors, Inc.  
Pier 91 Facility  
Seattle, Washington

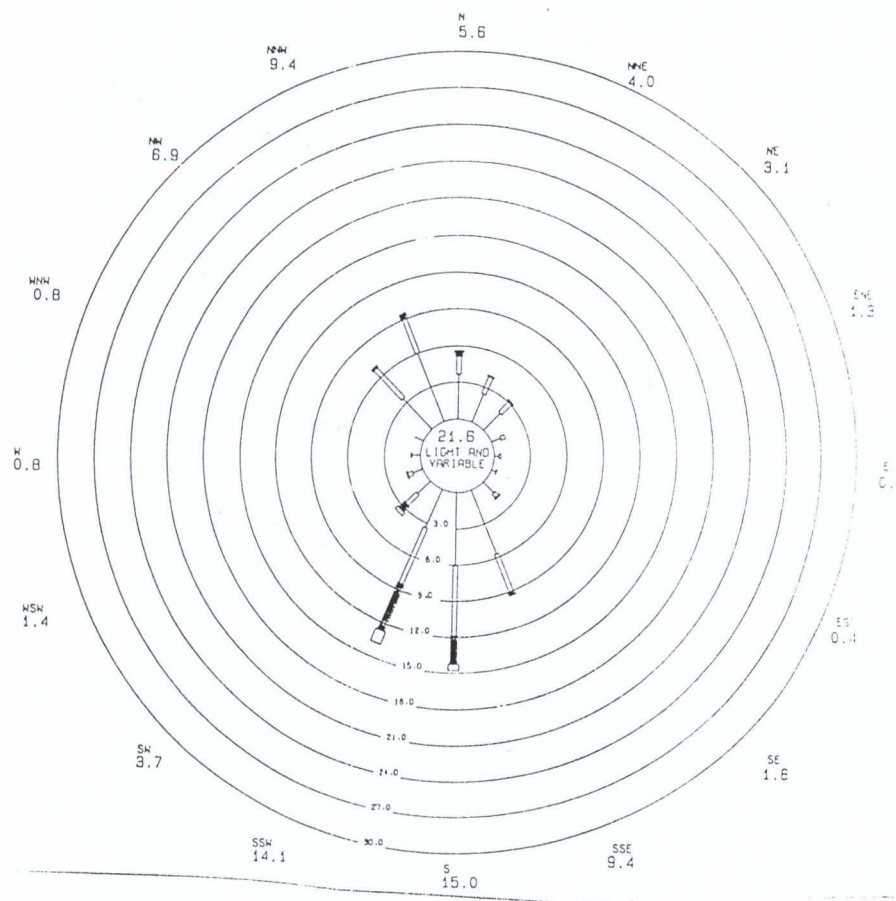








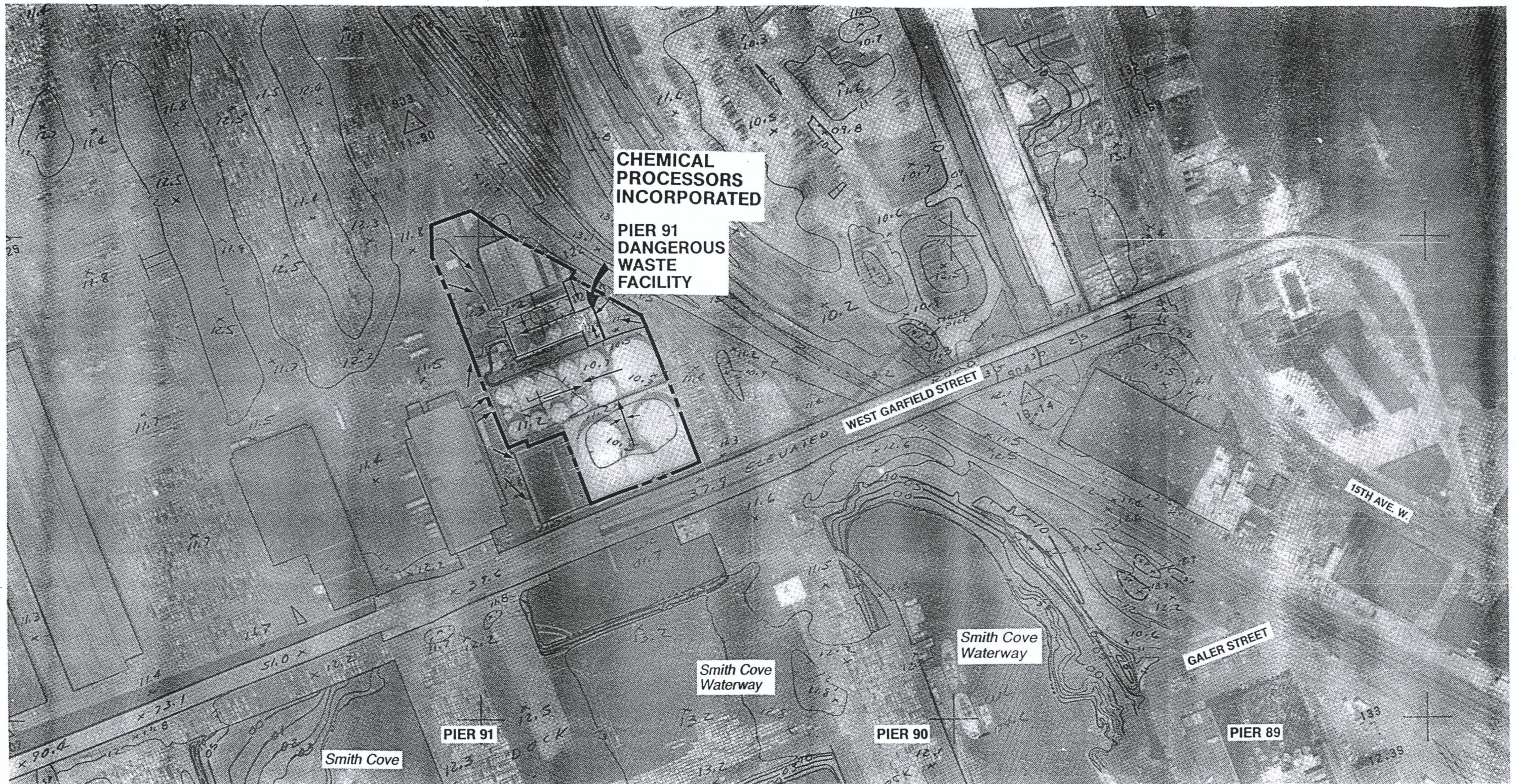
SOURCE: Puget Sound Control Agency  
Air Quality Data Summary (1985, 1986)



Hour Average Surface Winds  
Percentage Frequency  
of Occurrence (1986)

**FIGURE B2-3**  
**Local Wind Patterns and Vicinity Map**  
Chemical Processors, Inc.  
Pier 91 Facility  
Seattle, Washington





Aerial Photograph Dated June 1987

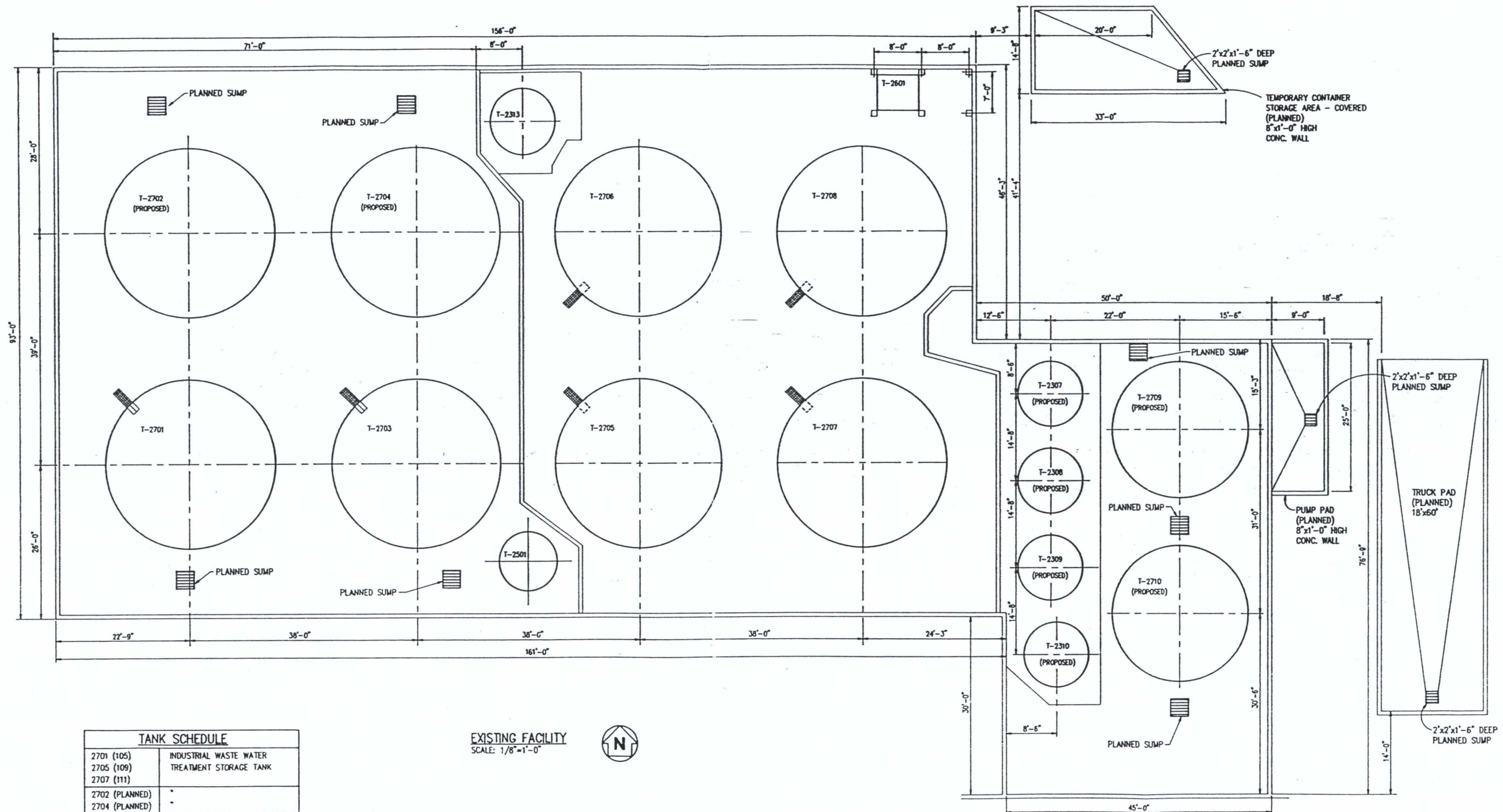
- Boundary of dangerous waste facility
- - - - - Limit of property leased by  
Chemical Processors, Inc.  
(identified for interim status)
- > Stormwater drainage direction  
All stormwater onsite is contained



Revised, December 1990

**FIGURE B2-4**  
**Stormwater Drainage Patterns**  
 Chemical Processors, Inc.  
 Pier 91 Facility  
 Seattle, Washington





TANK SCHEDULE	
2701 (105)	INDUSTRIAL WASTE WATER TREATMENT STORAGE TANK
2705 (109)	TREATMENT STORAGE TANK
2707 (111)	"
2702 (PLANNED)	"
2704 (PLANNED)	"
2703 (107)	WASTE OIL TREATMENT/STORAGE TANK
2708 (112)	"
2706 (110)	OIL/COOLANT TREATMENT AND STORAGE TANK
2709 (PLANNED)	WASTE OIL STORAGE TANK
2710 (PLANNED)	"
2313 (164)	HEATED TREATMENT/STORAGE
2307 (PLANNED)	HEATED TREATMENT AND STORAGE TANK
2308 (PLANNED)	"
2309 (PLANNED)	"
2310 (PLANNED)	"
2501	TREATMENT CHEMICAL STORAGE (NOT RCRA-REGULATED)
2601	CENTRIFUGE

EXISTING FACILITY  
SCALE: 1/8"=1'-0"

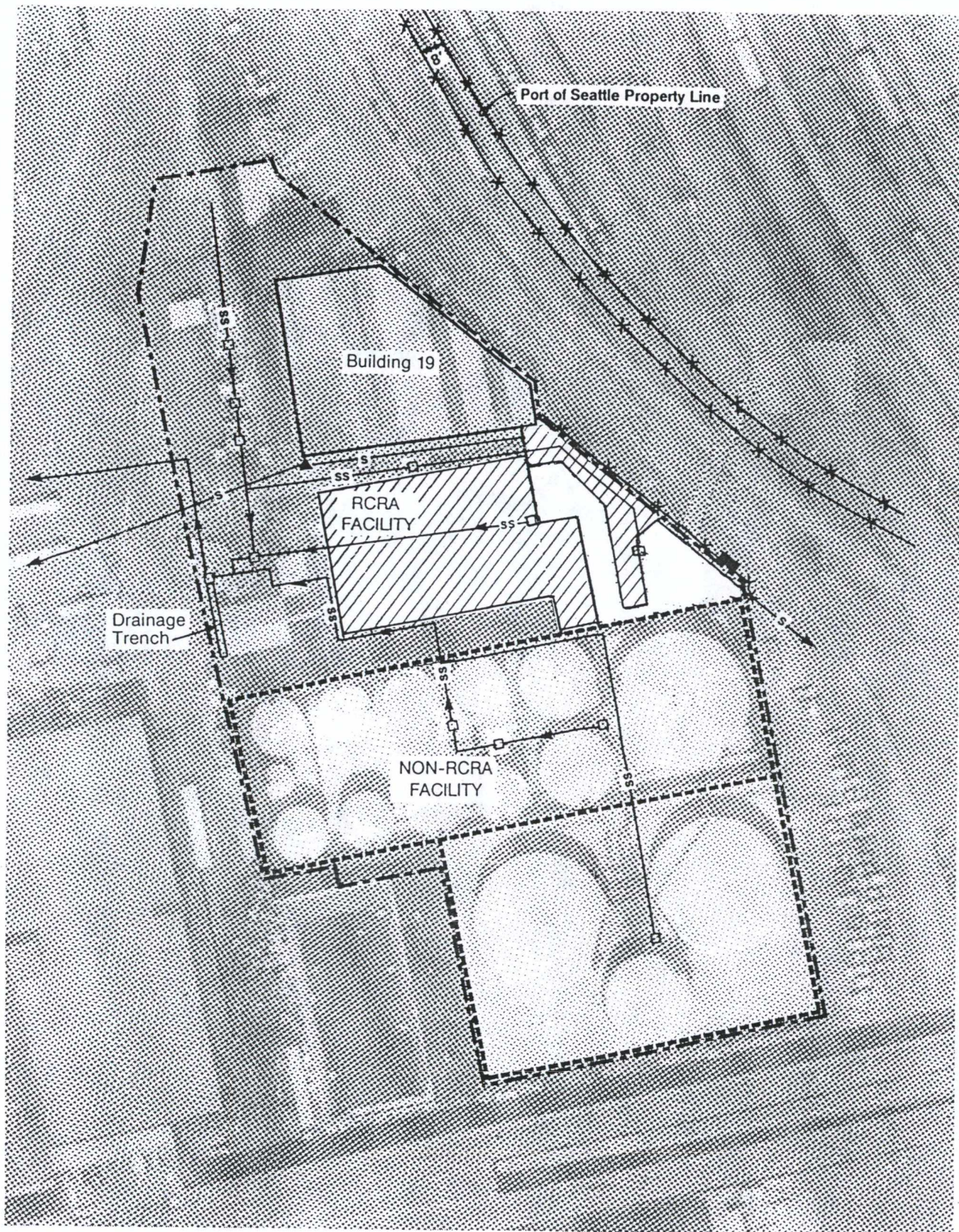


Figure B2-5

11-18-91	ADDED PUMP PAD AND TRUCK PAD
INITIAL RELEASE	
<b>BURLINGTON ENVIRONMENTAL</b>	
<b>PIER 91 FACILITY - DANGEROUS WASTE TANK SYSTEM &amp; PROCESSING AREA</b>	
SCALE: 1/8"=1'-0" DATE: 11-18-91 BY: [Signature]	DRAWN: HJR CHECKED: JLR DATE: 11-18-91 BY: [Signature]
D-88-21-S2	
1 of 1	

**EISI**  
consulting engineers  
1800 West Emerson Place  
Suite 200  
Seattle, Washington 98199





Aerial Photography Dated June 1987

- LEGEND**
- Approximate location of leased property
  - Existing fenceline
  - Gate
  - 15' Tall concrete block wall
  - ▨ Proposed RCRA Facility
  - ▨ Existing RCRA Facility

- ss — Existing Storm Sewer
- s — Sanitary sewer
- ▲ Sanitary sewer manhole
- Flow direction
- Sump/catch basin

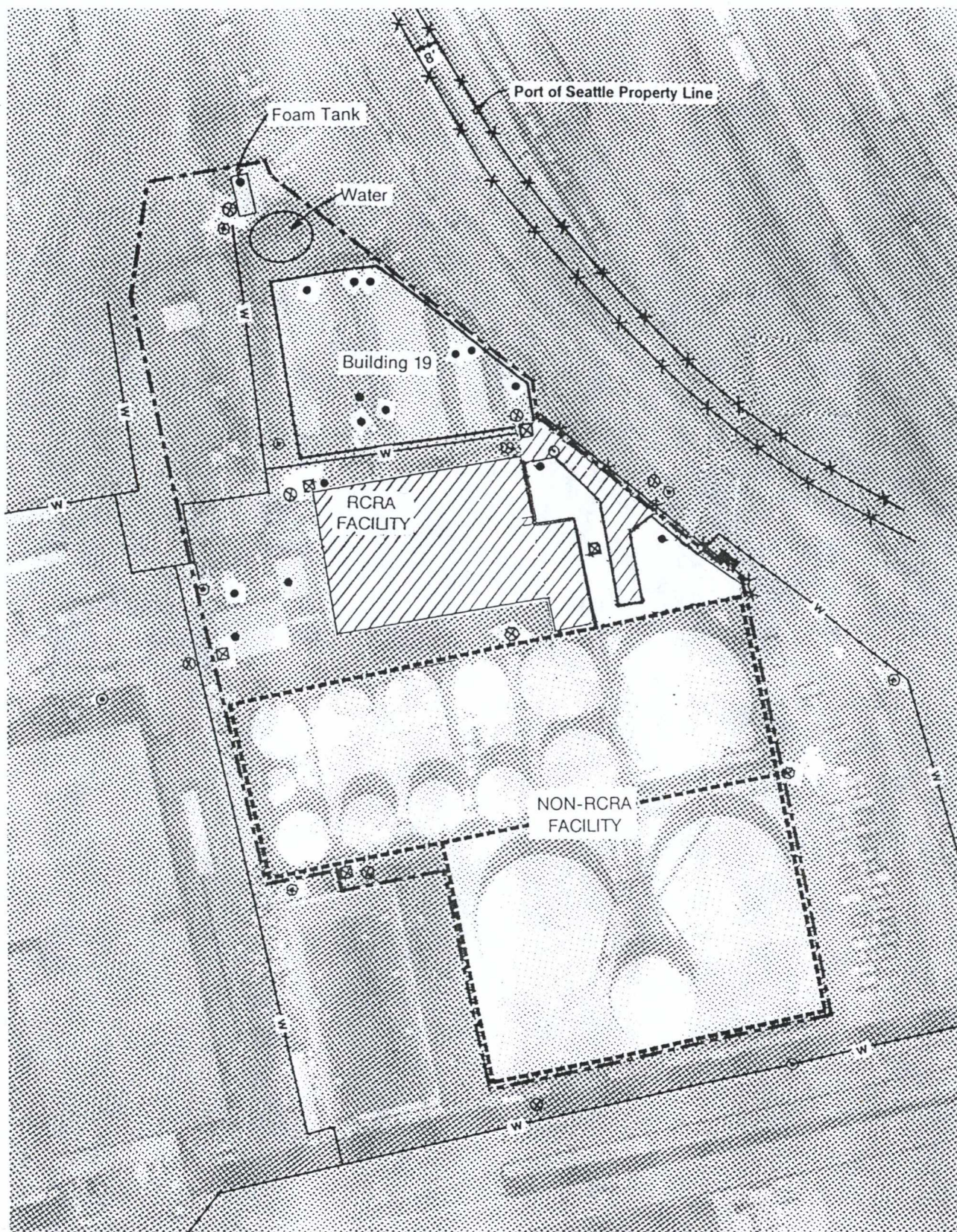
Revised, December 1990



0 50 100 150 feet

**FIGURE B2-6**  
**Sewer Facilities**  
 Chemical Processors, Inc.  
 Pier 91 Facility  
 Seattle, Washington





Aerial Photography Dated June 1987

- LEGEND**
- Approximate location of leased property
  - X-X- Existing fenceline
  - X-X- Gate
  - 15' Tall concrete block wall
  - [Hatched Box] Proposed RCRA Facility
  - [Hatched Box] Existing RCRA Facility

- ⊙ Fire hydrants
- ⊗ Foam hydrant outlet
- ⊠ Foam station
- w- Water lines
- Fire extinguishers



0 50 100 150 feet

**FIGURE B2-7**  
**Fire Control Facilities**  
 Chemical Processors, Inc.  
 Pier 91 Facility  
 Seattle, Washington

Revised, December 1990



Adjacent land use in the vicinity of the Pier 91 Facility is shown on Figure B2-2. This information was obtained through a visual survey of the properties surrounding the Pier 91 Facility, and through use of the city zoning code to determine generalized land use in the area. All land immediately adjacent to the facility is used for industrial and maritime purposes.

Figure B2-3, Local Wind Patterns and Vicinity Map, includes a wind rose depicting local wind patterns in the area near the Pier 91 Facility, and a vicinity map depicting the Pier 91 Facility's location in relation to Elliott Bay and the City of Seattle. Prevailing storm winds in the vicinity of the Pier 91 Facility are primarily from the north or south (see Figure B2-3, Local Wind Patterns and Vicinity Map). During 1986, winds greater than 1 knot (1.15 miles per hour) occurred about 78 percent of the time. Of winds with speeds greater than 1 knot, less than 10 percent of the winds were from the west or east.

Stormwater drainage patterns and the on-site storm sewer system are shown on Figure B2-4. All storm water on site is directed to drainage collection areas on site and contained for discharge to the Metro sewer system or for treatment on site prior to discharge (see Sections D1.3.2 and D2.2.2).

No surface waters or intermittent streams occur on-site; therefore features of this type are not included on Figures B2-1, Topographic Map, or B2-4, Stormwater Drainage Patterns. Smith Cove and Smith Cove Waterway (east slip, center slip, and west slip) are located within 1/4 mile of the facility. These surface waters are used for industrial and maritime activities in the Smith Cove area, and provide access to Elliott Bay and Puget Sound.



There are no injection or withdrawal wells on site or within 1,000 feet of the Pier 91 Facility; therefore no wells of this type are depicted. The Pier 91 Facility is not located within a 100-year floodplain; the proximity of the nearest 100-year floodplain is shown on Section B3.0, Figure B3-1 (Flood Plain Designation Map).

Tank treatment and storage units where dangerous waste are handled are depicted in Figure B2-5, Existing Dangerous Waste Tank System and Processing Area. Sumps will be located in these areas and on the adjacent truck loading/unloading pad.

Figures B2-6 and B2-7 depict sewer and fire control facilities on site, respectively.



### B3.0 LOCATION INFORMATION

Revised, May 1991

#### B3.1 Seismic Considerations

40 CFR 264.18(a), 270.14(b)(11)(i), (ii)  
WAC 173-303-420(3), 806(4)(a)(xi)(A), (B)

The Chemical Processors Inc. Pier 91 Facility located at 2001 West Garfield Street, Seattle, Washington, is an existing facility, therefore, the seismic standards referenced above are not applicable.

#### B3.2 Flood Plain Standard

40 CFR 264.18(b), 270.14(b)(11)(iii)  
WAC 173-303-420(4), 806(4)(a)(xi)(C)

The Chemical Processors, Inc. Pier 91 Facility is located in Zone C, outside the 100-year flood plain, as indicated on the Federal Insurance Administration Flood Hazard Boundary Map Index, Community No. 530089A, City of Seattle, Washington, dated 7/19/77 (see Figure B3-1, Flood Plain Designation Map).



# CHEMICAL PROCESSORS, INC. PIER 91 FACILITY

## KEY TO SYMBOLS

SPECIAL FLOOD  
HAZARD AREA

ZONE C
ZONE A
ZONE C

Base Flood Elevation Line

513

Base Flood Elevation

(513' MSL)

Elevation Reference Mark

RM7 X

River Mile

- M1.5

## \*EXPLANATION OF ZONE DESIGNATIONS

A flood insurance map displays the zone designations for a community according to areas of designated flood hazards. The zone designations used by FIA are:

Zone Symbol	Category
A	Area of special flood hazards (SFH) and without base flood elevations determined.
A1 through A30	Area of special flood hazards (SFH) with base flood elevations. Zones are assigned according to flood hazard factors, and dates of SFH identification.
AO	Area of special flood hazards that have shallow flood depths (less than two feet) and/or unpredictable flow paths. Base flood elevations are not determined.
V	Area of special flood hazards, with velocity, that are inundated by tidal floods. Zones are assigned according to flood hazard factors and dates of SFH identification.
B	Area of moderate flood hazards.
C	Area of minimal flood hazards.
D	Area of undetermined, but possible, flood hazards.

CONSULT NFIA SERVICING COMPANY OR LOCAL INSURANCE AGENT OR BROKER TO DETERMINE IF PROPERTIES IN THIS COMMUNITY ARE ELIGIBLE FOR FLOOD INSURANCE.

INITIAL IDENTIFICATION DATE:  
JULY 19, 1977

\* NOT PRINTED (ALL ZONE C)

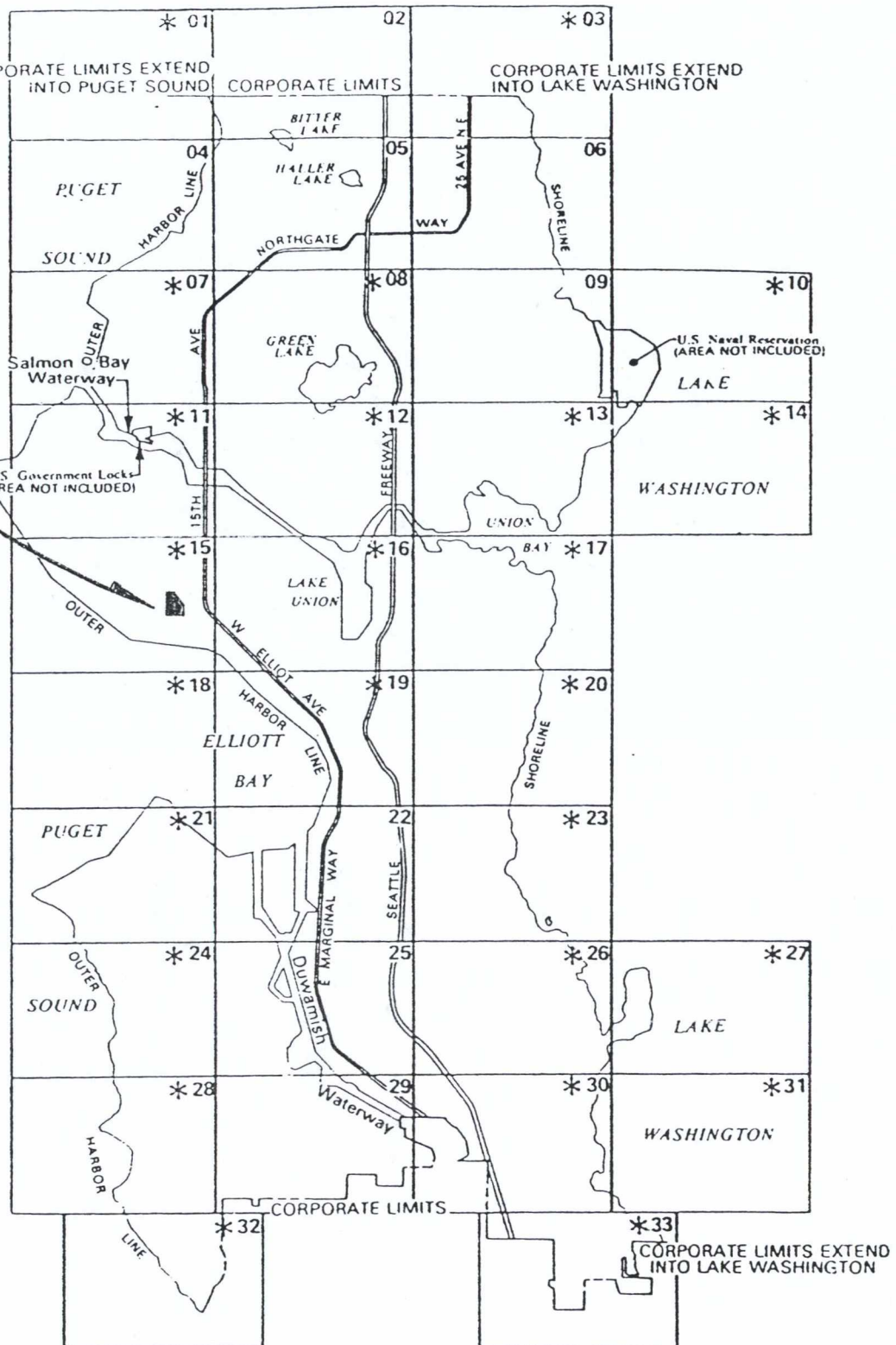
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
Federal Insurance Administration

FLOOD HAZARD BOUNDARY MAP H - 01-33  
FLOOD INSURANCE RATE MAP I - 01-33

## MAP INDEX

CITY OF SEATTLE, WA  
(KING CO.)

COMMUNITY NO. 530089A



Chemical Processors, Inc.  
Pier 91 Facility

## Flood Plain Designation Map

Figure B3-1



#### B4.0 TRAFFIC INFORMATION

Revised, January 1990, December 1990, November 1991

40 CFR 270.14(b)(10)

WAC 173-303-806(4)(a)(x)

This section provides information on traffic patterns, volumes and vehicle type for the facility waste handling methods and units. Traffic control measures and transportation routes are also discussed. Finally, roadway surfaces for on-site roadways and transportation routes are addressed.

The Chemical Processors, Inc. Pier 91 Facility stores and treats waste oil, oil and coolant emulsions, industrial wastewaters including alkalis, and industrial waste sludges. Dangerous wastes will be accepted, stored and treated in the dangerous waste tank system area located in the central east-northeast portion of the plant. Traffic volumes and patterns are presented in this section for the entire Pier 91 Facility including the dangerous waste tank system.

Wastes are most commonly transported to or from the Pier 91 Facility in tankers with bulk capacities of 2,000 to 8,200 gallons. Flat beds and vans with capacities of 40 to 96 drums are occasionally used to transport product such as treatment chemicals to the facility, and to transport containerized waste generated on site from the facility.

Traffic in the active areas of the facility is restricted to waste transportation vehicles, intra-facility operational equipment such as fork lifts, and service vehicles as needed. All other outside vehicle traffic (employee and visitor vehicles) are required to remain in the parking area (see Figure B4-1, Pier 91 Facility Site Plan).



Waste shipments are pre-scheduled when possible to avoid back-ups or delays. All incoming and outgoing waste loads are recorded through the waste tracking system (waste receipt) and are manifested per Washington Department of Ecology (Ecology) and Department of Transportation (DOT) regulations. Visitors are also required to sign in at the plant office.

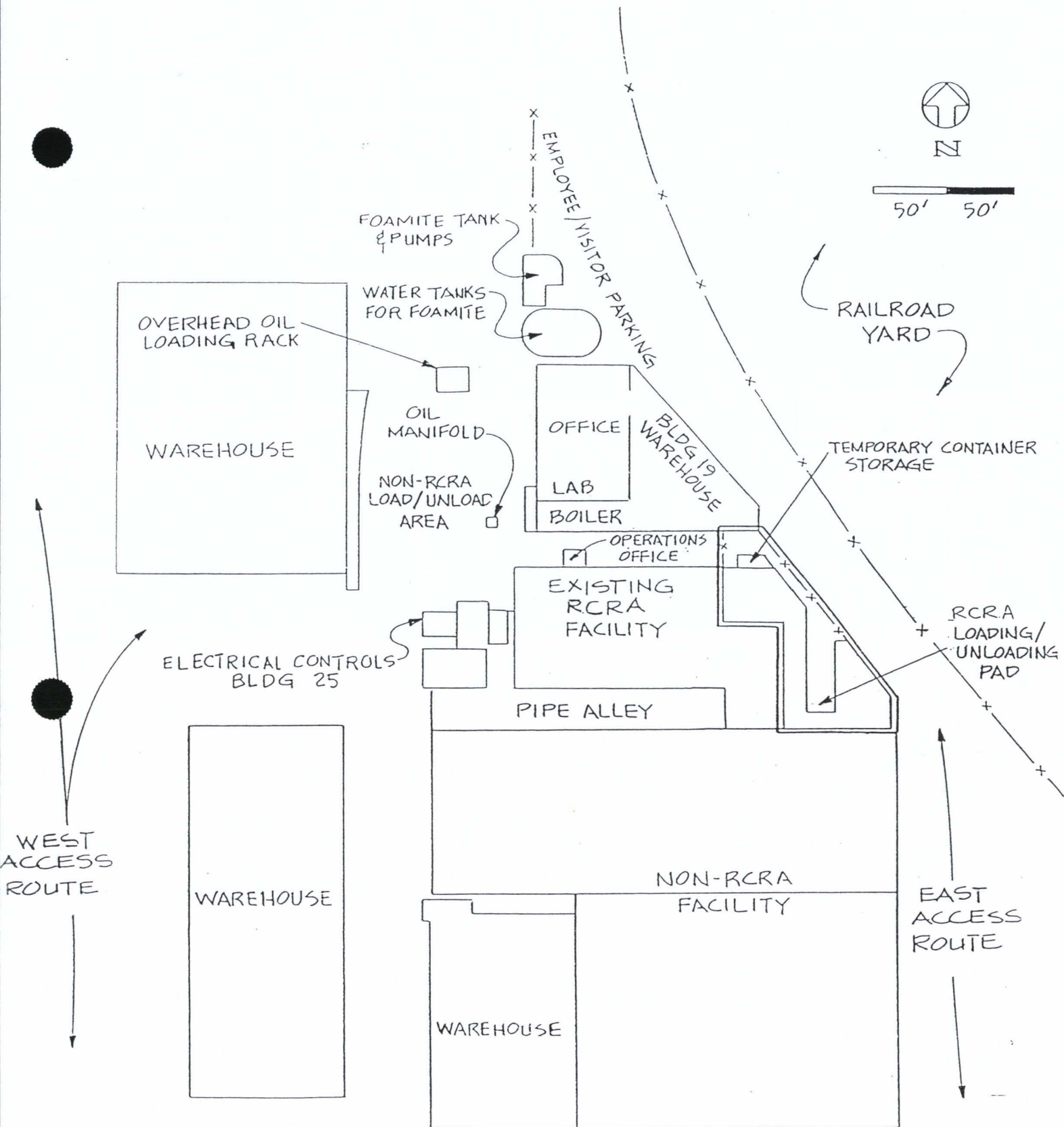
New personnel and drivers are informed of all check-in procedures and traffic patterns, and are familiarized with the general facility site plan. Personnel who operate the fork lifts receive training in the proper safe operation of the equipment (see Section H, Personnel Training). Drivers of the waste transportation vehicles are present during loading to ensure proper safe weight distribution and load positioning.

#### B4.1 On-Site Traffic Volumes and Patterns

Revised, January 1990, December 1990, November 1991

The existing and predicted average weekly traffic volumes on site are summarized in Table B4-1. The data presented for the existing facility were calculated from historical records (waste receipts and manifests) and supplemented by a traffic survey completed in May 1988 by Chemical Processors, Inc. The survey was conducted on five consecutive weekdays between the hours of 8 am and 9 pm, to represent typical operational conditions at the facility. Peak periods of incoming and outgoing waste transportation activity occur during the hours of 10 am to 1 pm and 4 pm to 8 pm, and consist primarily of bulk liquids in tankers.





W. GARFIELD ST. VIADUCT

Chemical Processors, Inc.  
Pier 91 Facility

**Pier 91 Facility  
Site Plan**

Figure B4-1



TABLE B4-1. AVERAGE WEEKLY TRAFFIC VOLUMES  
Revised, December 1990, November 1991

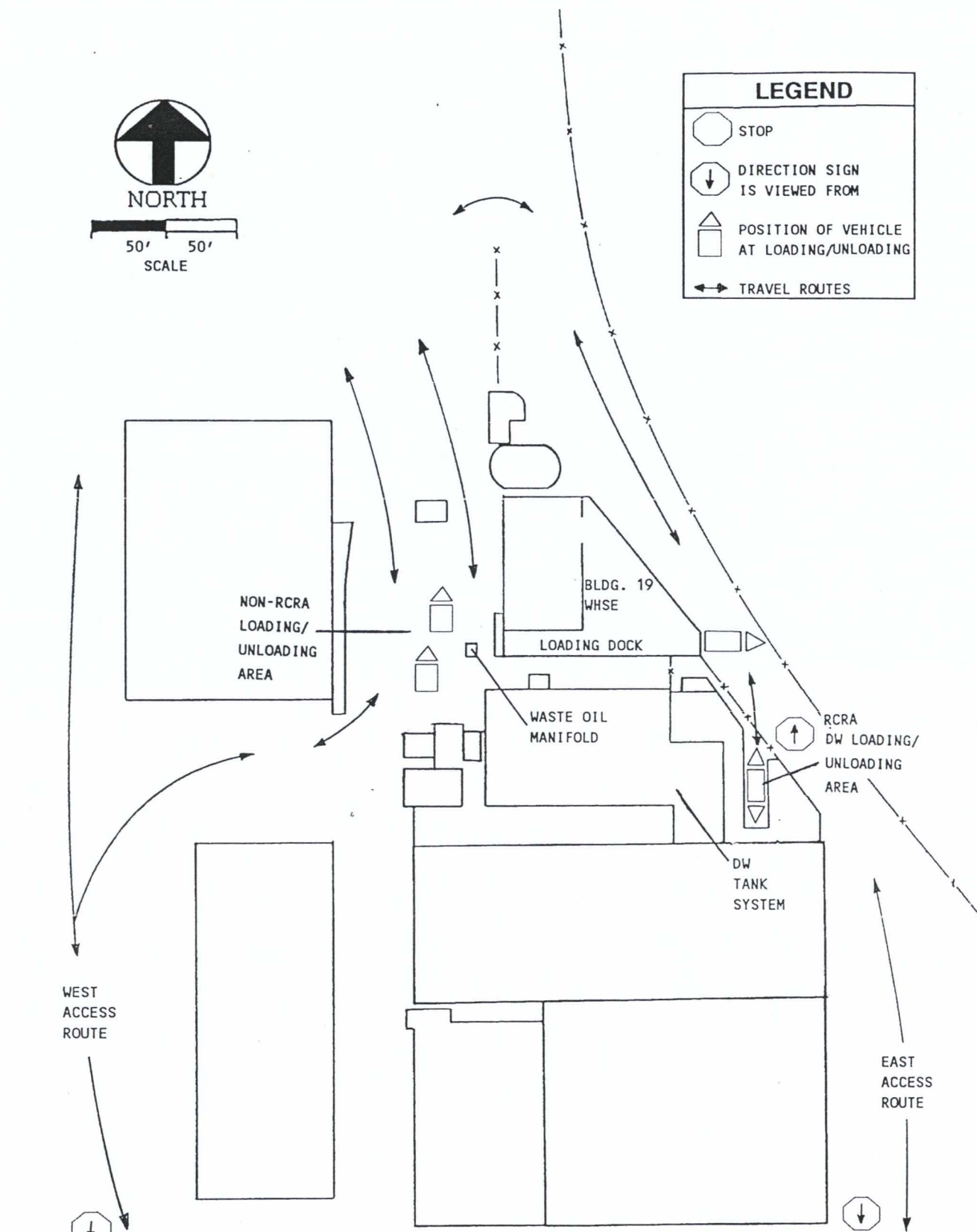
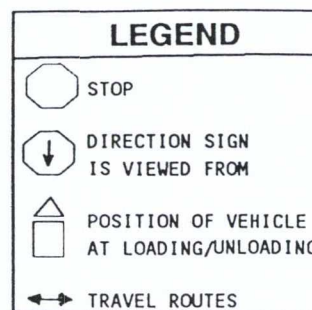
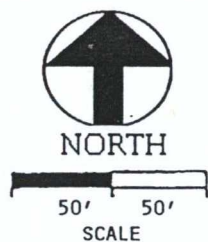
VEHICLE TYPE	LOADING/UNLOADING AREA AND TOTAL NUMBER OF LOADS				
	<u>Manifold</u> IN	<u>Bldg. 19</u> IN OUT		<u>Existing Dangerous Waste Area</u> IN OUT	
<u>Tankers</u>	35	N/A		15	1
<u>Flat Beds</u>	N/A	<1	<1	0	<1
<u>Vans</u>	N/A	<1	<1	2	0
N/A Not Applicable					

The traffic volumes for the existing and proposed dangerous waste portions of the facility are based on the calculated capacities of the storage/treatment equipment and processes, and the predicted volumes of incoming waste for these areas.

A small net increase in traffic volume at the entire Pier 91 Facility is expected over time, to reflect changes in the number of incoming waste loads and the efficiency of treating and storing the wastes.

The traffic patterns for waste transportation vehicles and intra-facility operational equipment are described in the following sections. Figure B4-2, Facility Traffic Patterns and Control Signs, depicts the on-site traffic routes discussed in these sections.





Chemical Processors, Inc.  
Pier 91 Facility

## Facility Traffic Patterns and Control Signs

Figure B4-2

Revised, December 1990



### Manifolds and Warehouse Building 19

(for informational purposes only)

Tankers unloading non-dangerous (non-RCRA regulated) wastes at the oil/water manifold approach this unloading area via the access route along either the eastern boundary or along the western boundary of the facility. The vehicles pull northward at the unloading area, then back southward to the proper position at a manifold. The oil/water manifold is located along the eastern side of the unloading area and is capable of handling from one to three vehicles simultaneously.

After unloading, the vehicles exit the facility by moving northward and turning to either the east or west access routes. A railroad spur is located along the west side of Building 19 and can be used to receive bulk shipments.

The manifold unloading area will continue to be used for receiving non-dangerous waste oil and wastewaters only. No dangerous wastes will be received or shipped from this area upon issuance of the Part B Permit.

The east loading dock of Warehouse Building 19 is used to load out containers of waste generated on site, unload product and load/unload general operating equipment and supplies. Containers of waste are shipped out by flat bed or van approximately two to four times annually. The Pier 91 Facility does not receive waste in containers for storage. Containers of product are received, usually by van, two to four times each month. The Warehouse Building 19 loading dock will continue to be used for receiving product upon issuance of the Part B Permit, but will not be used to load out containers of waste.



To access the loading dock, vehicles approach the facility by either the west or east access routes. Those using the west access route circle south at the north end of the plant and proceed onto the east access route. The vehicles back up to the loading dock. To exit the facility, the vehicles turn north or south along the east access route.

#### Dangerous Waste Loading and Unloading Pad

The existing dangerous waste area will utilize a dedicated dangerous waste loading and unloading pad and a temporary (less than 90 days) container storage area, to be constructed east and north of the dangerous waste tank system. Containers of waste will not be received from off site; all containerized waste will be generated on site. The waste transportation vehicles using this area will consist primarily of tankers and occasional flat beds or vans. Vehicles will approach the loading pad from either the north or south via the access roadway along the eastern facility boundary.

Vehicles entering the loading pad from the north will travel northward along the west access route, circle south around the north end of the plant onto the east access route, then enter the loading area heading south. When exiting the plant, the vehicles will back out of the loading pad and continue southward along the east access route.

Vehicles entering the loading pad from the south will approach the facility heading northward along the east access route and enter the loading area by backing-in towards the south. To exit the facility, the vehicles will continue northward along the east access route, circle



southward around the north end of the plant and depart via the west access route.

#### Intra-Facility Traffic

Fork lifts are used to transfer, load and unload containers, and for general lifting at the facility. The fork lifts remain primarily within Warehouse Building 19, but will also be used in the dangerous waste area to unload drums of wastes generated on site and to unload treatment chemicals.

Personnel operating this equipment are instructed to give right-of-way to all pedestrians, waste transportation vehicles and any other traffic present at the facility. The fork lifts are equipped with lights, horns and back-up alarms.

Other intra-facility traffic may include service vehicles as needed. Drivers are instructed to obey all traffic control signs posted throughout the facility.

#### B4.2 Traffic Control

Revised, January 1990, December 1990, November 1991

Traffic and related impacts are controlled on site by the scheduling of waste shipments, controlling access to active operational areas, use of established traffic routes and placement of traffic control signs. These measures and procedures are described in the following paragraphs.

To avoid backups and delays, waste shipments are pre-scheduled for arrival or pickup when possible. The waste transportation and service vehicles are directed to the proper loading/unloading or operational area by facility



personnel. Access to the dangerous waste area will be controlled by entrance and exit gates. These gates will be kept closed except during loading and unloading operations.

Visitors are required to sign in at the plant office before entering the active area of the facility and are either escorted or under observation by plant personnel while in the active area.

Traffic control signs are posted throughout the facility. These signs include "Stop", "No Parking", "Speed Limit 10 MPH," and signs designating employee/visitor parking areas (see Figure B4-2, Facility Traffic Patterns and Control Signs).

#### B4.3 Transportation Routes

Vehicles transporting waste to and from the Pier 91 Facility enter the Port of Seattle area through the truck entrance on West Galer Street. Once inside the Port of Seattle, the vehicles travel northward on the access routes along either the eastern or western boundaries of the facility to the designated loading/unloading area. West Galer Street is accessed from the north by 15th Avenue West and from the south by Elliott Avenue West. Both 15th Avenue West and Elliott Avenue West are designated truck routes and provide access to State Route 99 and Interstate 5 (see Figure B4-3, Pier 91 Facility Access Routes).

The traffic volumes and road classifications for the transportation routes in the immediate area leading to the facility are summarized in Table B4-2.



TABLE B4-2. TRAFFIC VOLUMES AND ROAD CLASSIFICATIONS FOR  
TRANSPORTATION ROUTES

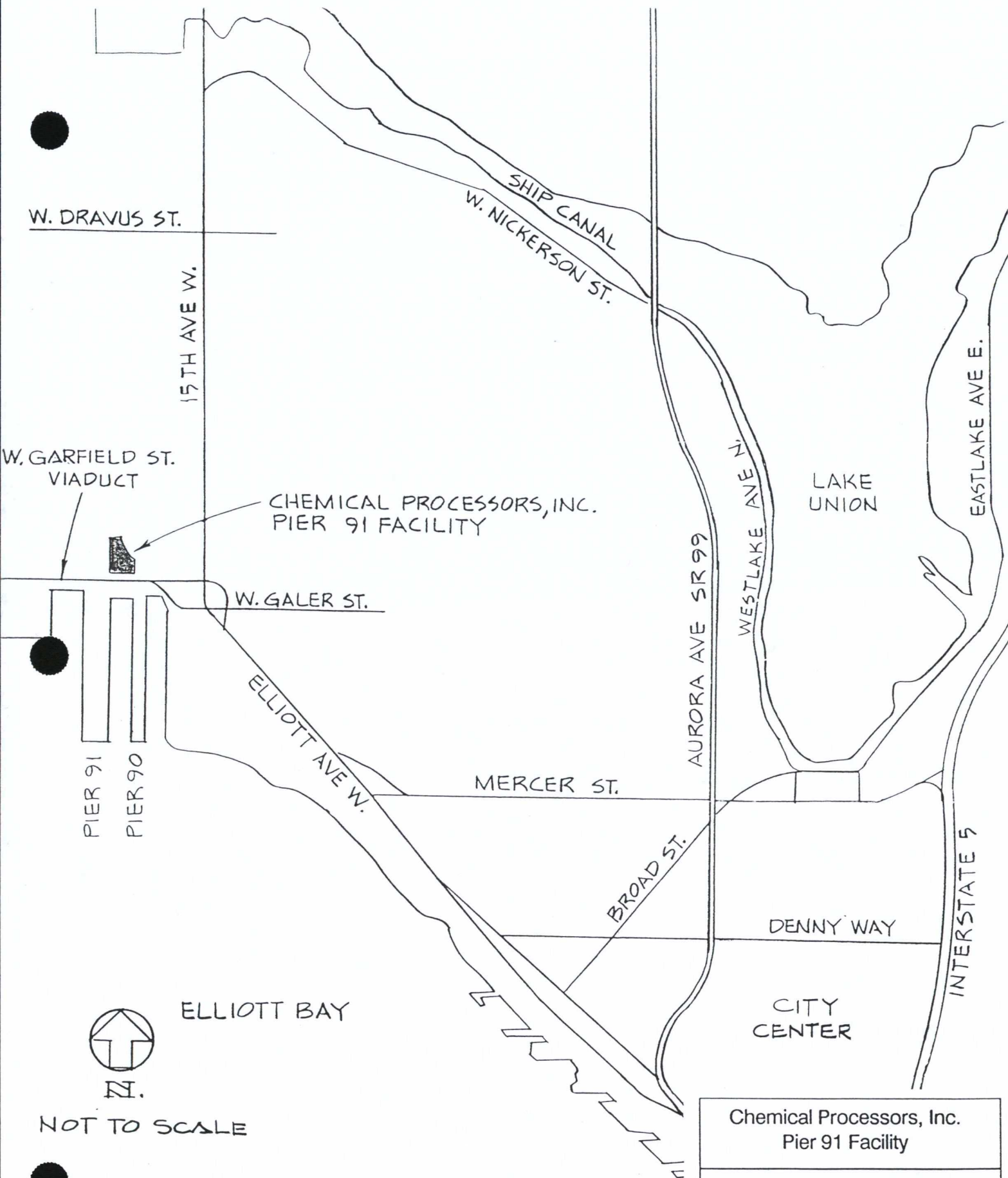
ROAD	SEGMENT	ESTIMATED VOLUME (VEHICLES/DAY)	CLASSIFICATION
Port of Seattle Truck Entrance	West Galer St.	300 <sup>(a)</sup>	Not Available
West Galer St.	Port of Seattle to 15th Ave./Elliott Ave.	Not Available	Minor Arterial - Truck Street <sup>(c)</sup>
15th Ave. West	W. Galer St. to W. Dravus St.	37,600 <sup>(b)</sup>	Regional Arterial - Truck Route <sup>(c)</sup>
Elliott Ave. W.	W. Galer St. to W. Mercer St.	41,600 <sup>(b)</sup>	Regional Arterial - Truck Route <sup>(c)</sup>

(a) Estimated volume from 1988 Port of Seattle survey.

(b) Estimated volumes from 1986 City of Seattle Engineering Department  
Traffic Division survey.

(c) Road classifications from 1984 Seattle Engineering Department  
Office of Planning, Seattle Comprehensive Transportation Program.





Chemical Processors, Inc.  
Pier 91 Facility

**Facility Access Routes**

Figure B4-3



#### B4.4 Roadway Surfaces

Revised, January 1990, December 1990

This section discusses the adequacy and load bearing capacities of the access roadways and facility roadways and loading areas.

West Galer Street, Elliott Avenue West and 15th Avenue West are constructed of asphalt and are under the jurisdiction of the City of Seattle. The roadways within the Port of Seattle are asphalt and are controlled by the Port of Seattle. The maximum gross vehicle weight is 80,000 lbs. as established by the Washington State Department of Transportation per WAC 480-12-180.

The roadways within the facility are paved with asphalt and constructed to handle the maximum load limits of the transportation vehicles (80,000 lbs. gross). Chemical Processors, Inc. maintains the roadways and surfaces within the facility boundary on an as needed basis.

The loading pad has a designed load-bearing capacity specified in accordance with the American Association of State Highway Transportation Officials (AASHTO) 1983 "Standard Specifications for Highway Bridges". The load-bearing capacity specified in AASHTO 1983 is HS 20-44, equivalent to truck axle loads of 8,000 lbs. on the single front axle, 38,000 lbs. on the dual second axle (14 feet back), and 38,000 lbs. on the dual third axle (14 to 30 feet back from the dual second axle). The loading/unloading pad will be inspected weekly for cracks, gaps and structural integrity. Cracks will be repaired by epoxy injection.



## B5.0 PERFORMANCE STANDARDS

WAC 173-303-283

This section discusses adherence to general performance standards at the Chemical Processors, Inc. Pier 91 Facility. The performance standards require that a dangerous waste facility be designed, constructed, operated, and maintained in a way that, to the maximum extent practical given the limits of technology, prevents degradation of environmental quality, uses the best waste management technology to the extent economically feasible, and prevents endangerment of the health of employees or the public near the facility.

Demonstration of compliance with these performance standards is discussed below. Additional information on prevention of environmental impacts at the site is presented in Section F, Procedures to Prevent Hazards, and in Appendix J-1, State Environmental Policy Act (SEPA) Environmental Checklist.

### B5.1 Prevention of Degradation to Groundwater and Surface Water Quality

Revised, January 1990, December 1990, November 1991  
WAC 173-303-283(3)(a) and (c)

Groundwater levels in the Pier 91 area may fluctuate in accordance with local tidal activity, and are known to occur at depths of 6 to 8 feet in the vicinity of the Pier 91 Facility. No surface water bodies or intermittent streams are located within the facility boundary or on adjacent properties.

Smith Cove and Smith Cove Waterway (east slip, center slip and west slip) are located approximately 800 feet southwest and 600 feet south of the site, respectively (see Figure



B1-1, Pier 91 Facility Location Map). These surface waters are used for industrial and maritime activities in the Smith Cove area and provide access to Elliott Bay and Puget Sound.

Degradation of ground and surface water quality at the Pier 91 Facility is prevented through operation of dangerous waste management units in accordance with applicable regulations to prevent releases to the environment or endangerment of public health (see Section B5.8).

All loading, unloading, storage and treatment of dangerous wastes are conducted within secondary containment systems designed with berms, blind sumps, and tank overfill monitoring systems. The tank system containment walls and berms are of sufficient height to prevent overflow from the failure of any tank. All tanks are closed-top and are not subject to overtopping by wave or wind action, or precipitation. The temporary (90-day) container storage area and tank system will not be subject to run-on from a 100-year/24-hour storm because each is adequately bermed and elevated. The tank overfill monitoring equipment is regularly inspected to ensure proper working order. The design and operation of dangerous waste management units on site is further described in Section D, Process Information. Inspection procedures to ensure proper maintenance and operation of equipment at the facility are described in Section F, Procedures to Prevent Hazards.

Should a spill occur outside of the secondary containment, emergency response measures are taken to ensure rapid containment and cleanup of spilled materials to protect ground and surface waters. These emergency response procedures are identified in Section B7.0, Spills and Discharges into the Environment, and Section G, Contingency Plan.



Facility drainage patterns for run-off from non-process areas slope away from the secondary containment systems for dangerous waste management units and other process areas on site. Stormwater drainage patterns and the on-site storm sewer system are shown on Figure B2-4. All stormwater on site is directed to drainage collection areas on site and contained for discharge to the Municipality of Metropolitan Seattle (Metro) sewer system or for treatment on site prior to discharge (see Section D1.0).

Precipitation which accumulates in the dangerous waste secondary containment systems on site is collected in sumps and is pumped into on-site storage tanks. The water is sampled and analyzed for compliance with the discharge parameters. It may be processed along with wastewater treated or stored within the surrounding secondary containment area. Treated wastewater is then sampled and analyzed prior to pumping to a tank for approved sewer discharge (see Section C, Waste Characteristics). Treated wastewater meeting discharge parameters is released in approved discharges to the Metro sewer system, under Industrial Wastewater Discharge Permit No. 7099-R09/84-2.

#### B5.2 Prevention of Degradation to Air Quality

Revised, January 1990

WAC 173-303-283(3)(b)

Volatile organic emissions and odors which may occur from tanks at the facility are controlled by a condenser and carbon adsorption equipment. Other emission controls at the facility will be installed where necessary, in compliance with Puget Sound Air Pollution Control Agency (PSAPCA) Regulation I.



B5.3 Prevention of Destruction or Impairment of Flora  
and Fauna

Revised, January 1990

WAC 173-303-283(3)(d)

The Pier 91 Facility is entirely paved, including areas where buildings and waste management units are not located. There is no vegetation present at the facility, or outside the active portion of the facility. Operation of the facility does not affect the health or abundance of vegetation within or outside the active portion of the facility.

The Pier 91 Facility is fenced to keep animals from wandering onto the property. Fauna occasionally seen outside the active portion of the facility include mammals (cats and rodents) and birds (pigeons). Hawks, shrikes, and sparrows are typical migratory bird species sighted at upland locations during spring and fall migration seasons along the Pacific Flyway. As discussed in Appendix J-1, State Environmental Policy Act Environmental Checklist, it is considered doubtful that birds or mammals use this area exclusively over other feeding and habitat areas available to them.

B5.4 Prevention of Excessive Noise

Revised, November 1991

WAC 173-303-283(3)(e)

Routine operations at the Pier 91 Facility do not generate excessive noise. Existing sources of noise on site include occasional truck traffic and equipment operation, but the



resulting noise levels are not excessive relative to other noise sources in the Pier 91 industrial area. Construction activities during installation of proposed dangerous waste tanks and related units on site may result in short-term, temporary increases in on-site noise levels, primarily during regular working hours (7 a.m. to 5 p.m.). Operation of the facility results in routine noise associated with equipment operation (primarily during regular working hours) and truck traffic (primarily during peak traffic periods on weekdays, approximately 10 a.m. to 1 p.m. and 4 p.m. to 8 p.m.). These impacts will be confined largely to on-site areas, and are not expected to be excessive relative to existing background noise levels.

#### B5.5 Prevention of Negative Aesthetic Impacts

WAC 173-303-283(3)(f)

Existing aesthetic conditions in the Pier 91 area are dominated by the industrial/commercial nature of the area. These conditions are similar for viewers in the Pier 91 area (including those on public roads and on adjacent properties) and for viewers looking at the area from distant elevations. Properties adjacent to the site are developed for heavy and light industrial/maritime use.

Maximum tank height in the dangerous waste tank system is approximately 30 feet. The principal tank material is carbon steel, painted with a flat light-colored paint to reduce glare. A small number of polyethylene tanks (manufactured in a light green color) will also be used on site.



The tallest building at the Pier 91 Facility is the warehouse and office building (Building 19), approximately 27 feet high. This building is constructed of corrugated steel.

The scale and appearance of the facilities are in keeping with the nature of surrounding conditions. No significant change in the character of existing views is anticipated as a result of facility operations. Views in the immediate vicinity will be altered somewhat by the planned installation of additional dangerous waste tanks and related units on site.

#### B5.6 Prevention of Soil Instability

WAC 173-303-283(3)(g)

The top soil layer consists of sand (fill) material up to 20 feet thick, underlain by a gravelly sand (fill) unit ranging from 2 to 15 feet thick. These layers are followed by silty sand, silt, sand, and interbedded sand and silt in layers up to 48 feet below the site.

There are no surface indications or history of subsidence or unstable soil in the immediate vicinity of the site.

Existing soils on site have been compacted by truck traffic, and by asphalt paving.

Erosion is not anticipated to occur as a result of construction or operations at the site. The relatively flat topography of the site and existence of paved surfaces on site contribute to erosion control methods. Standard construction methods will be followed to further guard against erosion during any construction activities at the site.



B5.7 Use of Processes That Do Not Treat, Detoxify,  
Recycle, Reclaim, or Recover Waste Material to  
the Extent Economically Feasible

WAC 173-303-283(3)(h)

The Pier 91 Facility is primarily a treatment and storage facility in which liquid industrial wastes are received and appropriately treated to render the waste non-dangerous. This is accomplished by processes which are deemed to be the most efficient possible and are still economically feasible.

There are no processes conducted at the Pier 91 Facility which do not treat, detoxify, recycle, reclaim, or recover waste material to the extent economically feasible.

B5.8 Prevention of Endangerment of the Health of  
Employees or the Public Near the Facility

Revised, January 1990

WAC 173-303-283(3)(i)

Existing operating procedures and features such as containment berms, sumps, overfill monitoring systems, air emission control equipment, warning signs, traffic control measures, and laboratory analysis of incoming and outgoing wastes are designed to prevent health hazards for both employees working at the facility and for the public near the facility. Personnel training, protective equipment, medical surveillance, inspections, contingency plans, and spill prevention plans are also actively used to prevent endangerment of health.

Refer to Section F, Procedures to Prevent Hazards, for a description of preparedness and prevention measures



practiced at the Pier 91 Facility. Section G, Contingency Plan, contains a description of emergency response procedures for the facility.

Chemical Processors, Inc. actively implements a medical monitoring program which at a minimum meets the Occupational Safety and Health requirements identified in 29 CFR 1910 for operations conducted under the Resource Conservation and Recovery Act of 1976. The program involves medical examinations conducted prior to employment and annually thereafter, throughout the duration of the employment. Exams are also required for those employees who are leaving the company if it has been 6 months since their annual examination. More frequent monitoring may be conducted as recommended by the doctor, or special monitoring may be conducted on employees who encounter the potential for excessive exposure to toxic materials or waste (for example, employees who are conducting remedial site work for clients). Each examination results in a record documenting briefly the outcome of the examination. Work restrictions or medical follow ups are identified. A computer program provides a data base used as a record of examinations and for scheduling annual appointments. As a general rule, examinations are required for individuals who may be exposed to hazardous material or wastes while they are conducting their job responsibilities.

Facility positions included in the medical monitoring program are Plant Manager, Superintendent, Shift Supervisor, Hazardous Waste Technician, Maintenance Mechanic, Hazardous Waste Management Chemist, Specialized Treatment Lab Pack and Lab Technician, and Data Entry Coordinator and Recordkeeper. Chemical Processors, Inc. corporate personnel who routinely visit the facility are also included in the medical monitoring program.



B6.0 IGNITABLE OR REACTIVE WASTE BUFFER MONITORING ZONE  
REQUIREMENTS

Revised, January 1990, December 1990

40 CFR 264.198(b)

WAC 173-303-640(9)(b)

The Chemical Processors, Inc. Pier 91 Facility accepts ignitable wastes (flash point  $<140^{\circ}\text{F}$ ) for storage or treatment in tanks. Reactive wastes exhibiting characteristics specified in WAC 173-303-090 are not accepted.

Two buffer zone distance requirements described in the Flammable and Combustible Liquids Code - 1981, National Fire Protection Association (NFPA No. 30) are satisfied for tanks containing ignitable wastes. The two distances are: (1) the minimum distance from the property line which is or can be built upon, including the opposite side of a public way, and (2) the minimum distance from the nearest side of any public way or from the nearest important building on the same property.

The required buffer zone distances are determined using Tables 2-1 and 2-6 of NFPA No. 30. Tables 2-2 through 2-5 of NFPA No. 30 are not applicable as only Class I, II and IIIA stable liquids are accepted, and all tanks are low pressure vessels with emergency relief venting to permit operating pressures to be less than 2.5 pounds per square inch gauge (psig).

The required and actual buffer zone distances (distances 1 and 2, respectively) for tanks containing ignitable wastes are compared in Table B6-1.



TABLE B6-1. BUFFER ZONES FOR TANKS CONTAINING IGNITABLE WASTE  
Revision, December 1990, September 1991, November 1991

TANKS	MAX TANK CAPACITY (GAL)	<u>DISTANCE (1) FT.</u>		<u>DISTANCE (2) FT.</u>	
		REQUIRED	ACTUAL	REQUIRED	ACTUAL
2307	14,810	20	78	5	54
2308	14,810	20	87	5	63
2309	14,810	20	96	5	72
2310	14,810	20	105	5	81
2313 (a)	14,810	10	195	2.5	28
2703 (a)	49,485	15	140	5	77
2706 (a)	49,485	15	84	5	38
2708 (a)	49,485	15	55	5	38
2709 (a)	55,940	25	60	7.5	36
2710 (a)	55,940	25	80	7.5	56

Distance (1): The minimum distance from the property line which is or can be built upon, including the opposite side of a public way.

Distance (2): The minimum distance from the nearest side of any public way or from the nearest important building on the same property.

Reference: Table 2-6, NFPA No. 30, lists the buffer zone distances based on tank capacity in gallons. The value obtained from Table 2-6 is applied to Table 2-1 of NFPA No. 30, operating pressures less than 2.5 psig.

(a) These tanks are protected by an approved foam system. Therefore, as specified in Table 2-1, required buffer zone distances for these tanks are half of the values given in Table 2-6.



## B7.0 SPILLS AND DISCHARGES INTO THE ENVIRONMENT

Revised, January 1990

The following section describes emergency response procedures for spills and discharges to the environment which are included in the Chemical Processors, Inc. Contingency Plan for the Pier 91 Facility. The procedures discussed here include notification, mitigation and control, clean up of released material, management of contaminated soil, water and other materials, and restoration of the impacted area.

### B7.1 Notification

Revised, January 1990

WAC 173-303-145(2)

Notification procedures, described below, will be initiated to ensure immediate notification of the proper authorities in the event of a non-permitted discharge of dangerous waste or hazardous substances into the environment, such that public health or the environment are threatened.

Any employee, when faced with an actual or imminent emergency or spill of any kind, will directly contact the Emergency Coordinator (EC). The EC will contact the Chemical Processors, Inc. Regulatory Affairs Department and supply specific information as to the type, quantity and location of the release. Regulatory Affairs personnel and the EC will evaluate this information and implement the proper notification procedures for local, state, and federal agencies. The EC will immediately contact these agencies if it is readily determined that the emergency threatens public health or the environment outside the facility.



For spills or discharges onto the ground or into the groundwater or surface water which could threaten public health or the environment or for an uncontained release of a reportable quantity of a hazardous substance, the Washington Department of Ecology, Local and State Emergency Planning Committees (per 40 CFR 355.40) and the National Response Center will be notified. Specific information concerning the discharge will be provided as described on the Emergency Information Reporting Form, Appendix G-3 of the Contingency Plan (Section G). For spills or discharges which result in air emissions such that the public health or the environment are threatened, the Puget Sound Air Pollution Control Agency (PSAPCA) will be notified and provided with details of the incident. For non-permitted releases to the sewer, the Municipality of Metropolitan Seattle (Metro) will be contacted and details of the incident provided.

The Emergency Response Notification Flow Chart, Figure G4-2 of the Contingency Plan (Section G), summarizes notification procedures and lists the names and telephone numbers of appropriate authorities, Emergency Coordinators and Regulatory Affairs personnel.

#### B7.2 Mitigation and Control

WAC 173-303-145(3)

The immediate mitigation and control of a non-permitted spill or discharge into the environment is addressed by locating and immediately eliminating the source. The spill is contained with the emergency equipment at hand, including the containment structures provided for all operating areas. All pumps and equipment will be shut down and valves will be closed. To confine the spill or run off to the smallest possible area, absorbent materials and diking will be used. If the spill cannot be readily contained and controlled, the



Emergency Coordinator has the authority to initiate contractor assistance. The Chemical Processors, Inc. emergency response procedures for specific types of spills or discharges that are most likely to occur at the facility are described in the Contingency Plan, Section G4.3, Containment and Control of Emergencies.

B7.3 Clean Up and Management of Released Waste and Contaminated Materials

Revised, January 1990, July 1990, May 1991

WAC 173-303-145(3)(a)(i),(ii)

The proper clean up, storage and treatment of the released material and residues will occur as soon as possible to minimize potential danger to public health or the environment. The released material will be identified to ensure proper handling, storage and treatment processes in compliance with WAC 173-303. Identification of the type of released material can be made through eye witness accounts of the source of the leak, knowledge of the contents of the tank or container involved, in-plant records, manifests, or a generator's waste profile, and by sampling and laboratory analysis (see Section C2.0, Waste Analysis Plan).

Released materials within the secondary containment structures of the tank system and associated loading/unloading area will be pumped to compatible storage or treatment tanks. Leaking containers will be segregated and placed in overpack drums if necessary. The released material and the contents of the leaking drums will be transferred to specification containers for storage. On-site treatment of released materials will occur if the facility is capable of treating the material. If not, the material will be stored for shipment to an off-site RCRA-permitted facility.



Spill residues and clean up materials such as absorbents, diking material and protective clothing will be consolidated for storage and off-site disposal at a RCRA-permitted facility. Water from fire control or flooding will be pumped into tanks if adequate compatible storage capacity is available. If tank storage capacity is not available, water from fire control will be confined to secondary containment systems, held in tanker trucks, or placed in temporary storage tanks until tank storage is available. Accumulated liquids from fire control will be analyzed for discharge parameters and any additional constituents that are suspected or known to be present. If discharge parameters are met, Metro will be contacted to provide authorization for discharge of this material to the sanitary sewer. If discharge parameters are not met, this material will be transported off-site for treatment and/or disposal or treated on-site using methods described in Section B1.6.2, Process Description by Wastestream.

For a release to the soil, a generic clean up plan for the complete or partial removal of the released dangerous waste or hazardous material is as follows: (1) Contain and remove excess released material; (2) Based on visual observation of areal extent, remove the contaminated soil; (3) Take representative samples of the spill area and of the spilled material if necessary; (4) Analyze the samples for the appropriate parameters and characteristics of the released material; (5) Based on the analysis of the representative samples, determine if the released material has contaminated the soil beyond the initial excavation and if further excavation of the spill area is needed; (6) If further excavation is necessary, repeat analytical procedures until satisfactory results are obtained.



Standard sampling methods, labeling, chain of custody and analytic procedures will be used. Test Methods for Evaluating Solid Waste, SW-846, U.S. Environmental Protection Agency, November 1986, will be used as a guideline.

The spill area will be cleaned up such that the levels of dangerous waste or dangerous waste residues do not exceed clean-up levels at the site as developed under the Model Toxics Control Act (MTCA) clean-up standards of WAC 173-340, for any waste managed at the facility, which is either listed under discarded chemical product or dangerous waste sources (WAC 173-303-081 or 082) or is designated by the dangerous waste characteristics of WAC 173-303-090, and at least the designation limits of dangerous waste mixtures (WAC 173-303-084), or toxic, persistent, or carcinogenic dangerous wastes (173-303-101 through 103), for any waste managed at the facility, which is not listed under WAC 173-303-081 or 082 and is not designated by the characteristics of WAC 173-303-090.

#### B7.4 Restoration of Impacted Areas

##### WAC 173-303-145(3)(a)(iii)

The Pier 91 Facility is designed to prevent discharges to the environment both on and outside property controlled by Chemical Processors, Inc. through plant design, use of secondary containment structures and proper waste handling practices. All waste storage, treatment, transfer, loading/unloading and management operations are conducted on land controlled by Chemical Processors, Inc.

If a release from the Pier 91 Facility impacts an area outside of the Chemical Processors, Inc. property, the area will be restored and replenished in a manner acceptable to



the Washington Department of Ecology, including replenishment of resources (e.g. fish, plants) and restoration of the spill area (e.g. backfill with clean soil, return to grade.)

#### B8.0 MANIFEST SYSTEM

The following section describes the Chemical Processors, Inc. manifest system specific to procedures for receiving shipments, response to significant discrepancies, non-acceptance of undamaged shipments and activation of the Contingency Plan for damaged shipments.

##### B8.1 Procedures for Receiving Shipments

Revised, January 1990

40 CFR 264.71(a)(b), 264.72(a)  
WAC 173-303-370(2), (3), (4)(a)

The manifesting procedures for receiving dangerous waste shipments are described as follows. The Pier 91 Facility can receive bulk shipments of dangerous waste by rail, therefore, 40 CFR 264.71(b) and WAC 173-303-370(3) apply. The Pier 91 Facility does not receive dangerous waste in containers.

Prior to accepting a dangerous waste shipment, the manifest or shipping paper is compared to the physical load to verify that the bulk volume for each type of waste listed is correctly accounted for, and all information described on the manifest or shipping paper for the generator, transporter and storage/treatment facility is complete and accurate.



Any significant discrepancies are noted on each copy of the manifest or shipping paper. Significant discrepancies in quantity are variations greater than ten percent in weight for bulk quantities. Significant discrepancies in type are obvious physical or chemical differences which can be discovered by inspection or waste analysis. Once a significant discrepancy is noted, the procedure described in Section B8.2, Response to Significant Discrepancies, is implemented.

If the dangerous waste shipment is accepted, the manifest or shipping paper is then signed and dated to certify that the wastes covered by the manifest or shipping paper were received. The transporter is immediately given a copy of the signed and dated manifest or shipping paper with any significant discrepancies noted, and a copy is sent to the generator within 30 days. The twice monthly billing cycle of Chemical Processors, Inc. Sales and Accounting Departments ensure that the generator's copy of the manifest or shipping paper is returned within 30 days of receipt. Copies of the manifest or shipping paper are retained at the Pier 91 Facility for at least three years from the date the shipment was received.

#### B8.2 Response to Significant Discrepancies

40 CFR 264.172(b)

WAC 173-303-370(4)(b), 390(1)

Should a significant manifest discrepancy occur for an incoming dangerous waste shipment, it will be reconciled within 15 days. When a discrepancy is noted, facility Operations personnel notify the Regulatory Affairs Department and contact the generator by phone with details of the discrepancy. Operations personnel ask the generator for permission to correct the manifest or shipping paper to



match the load, and make the corrections to all copies of the manifest or shipping paper and initial each.

Immediately after the corrections are entered and initialed on the manifest, the discrepancy space (No. 19) provided on same manifest is completed to include the following information; what the discrepancy is, a statement to the effect that "on dd/mm/yr name of person contacted gave permission to correct the manifest discrepancy as noted above," the full signature of the employee making the correction and the time of day.

For unmanifested loads, those delivered to the facility without a manifest or shipping paper or with missing information required by 40 CFR Generator Standards, employees are instructed to contact the Regulatory Affairs Department. The Operations Department, together with the Regulatory Affairs and Sales Departments decide to accept or reject the shipment. If the shipment is accepted, an unmanifested waste report is completed by Operations and submitted to Regulatory Affairs within five days. Regulatory Affairs will then file a report to the Washington Department of Ecology (Ecology).

If after 15 days a discrepancy cannot be resolved, Regulatory Affairs submits to Ecology a letter describing the discrepancy, attempts to reconcile it and a copy of the manifest or shipping papers at issue.

B8.3 Non-Acceptance of Undamaged Shipments  
Revised, July 1990

WAC 173-303-370(5)(b)

Dangerous waste shipments may be denied receipt at the Pier 91 Facility for the following reasons; (1) The facility



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Chemical Processors, Inc.  
Pier 91 Dangerous Waste Treatment and Storage Facility

**Permit Application**

Submitted to Washington Department of Ecology  
and EPA Region X

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September, 1988

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VOLUME IV











SECTION E

GROUNDWATER MONITORING







SECTION E. GROUNDWATER MONITORING

40 CFR 264.90 - 100, 270.14(c)

WAC 173-303-645, 806(4)(a)(xx)

The RCRA Part A (interim status) and Part B (final status) groundwater monitoring requirements described in 40 CFR 264.90 - 100 and 270.14(c), and in WAC 173-303-645 and 173-303-806(4)(a)(xx) are not applicable to the Pier 91 Facility, since Chemical Processors, Inc. has not treated, stored, or disposed of dangerous waste in surface impoundments, waste piles, land treatment units, or landfills at the site.

All dangerous waste management units at the facility include adequate secondary containment, and are operated in accordance with applicable regulations to prevent releases to the environment or endangerment of public health. All dangerous waste, dangerous waste residues, contaminated containment system components, or contaminated subsoils (if any) will be removed or decontaminated upon final closure of the facility. For these reasons, the RCRA Part B groundwater monitoring requirements are also considered not applicable to the Pier 91 Facility.



SECTION F

PROCEDURES TO PREVENT HAZARDS











## SECTION F PROCEDURES TO PREVENT HAZARDS

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## SECTION F. PROCEDURES TO PREVENT HAZARDS

### F1.0 SECURITY PROCEDURES AND EQUIPMENT

#### F1.1 Barrier and Means to Control Entry

Revised, December 1990

40 CFR 264.14(b)(2)(i), (ii), 270.14(b)(4)

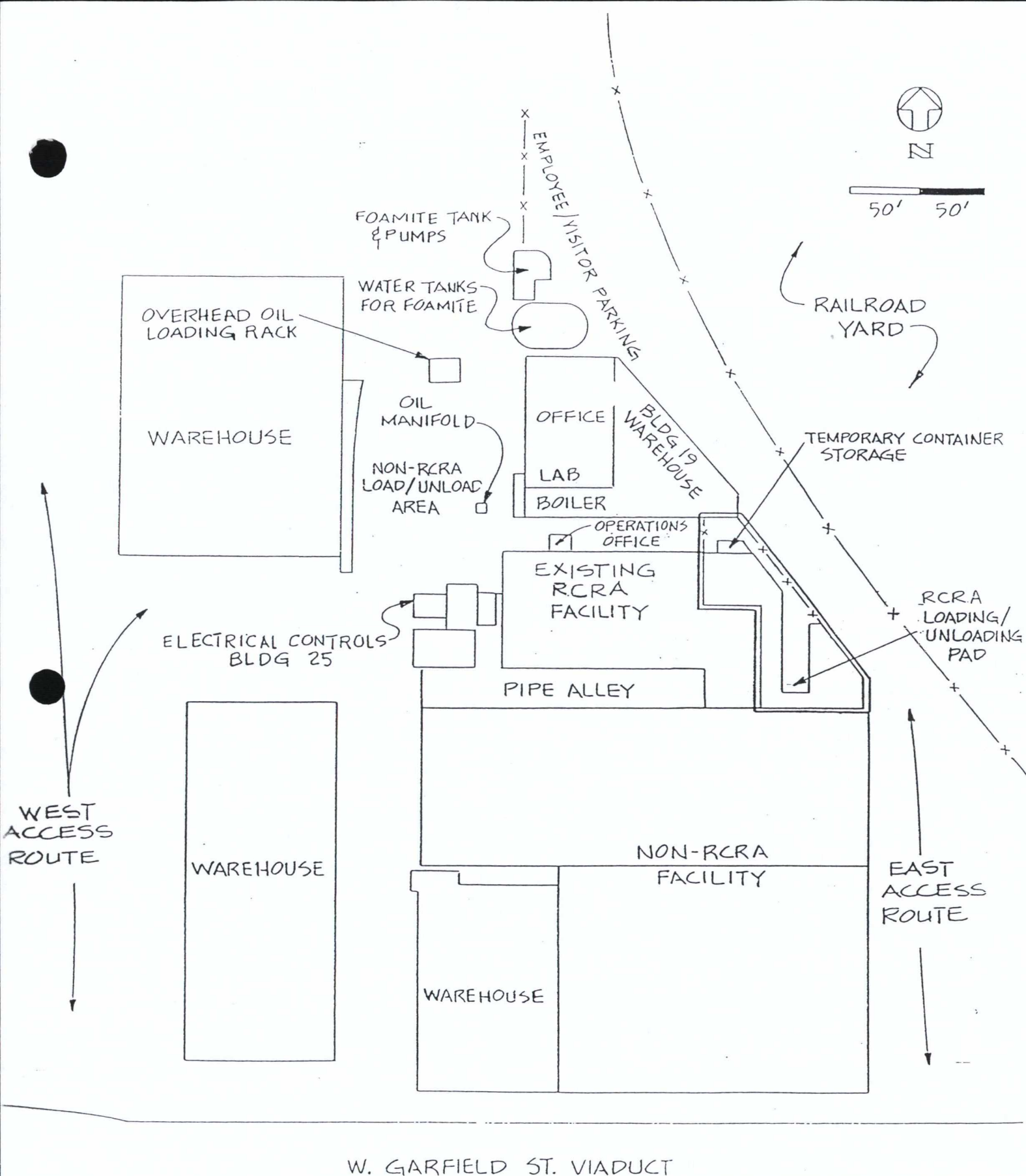
WAC 173-303-310(2)(c), 806(4)(a)(iv)

Existing and proposed dangerous waste storage and treatment operations at the Pier 91 Facility occur on a 0.7 acre portion of the facility. The remaining 3.3 acres is used for storage and treatment of non-hazardous waste oil and wastewater in tanks. Section F, Procedures to Prevent Hazards, applies to the existing and proposed dangerous waste portions of the Pier 91 Facility.

The dangerous waste portions of the Pier 91 Facility are completely surrounded by a barrier (concrete walls and six-foot-high chain link fence) and access is controlled by gates. Exits and entrances are located to control traffic flow, limit access to the active facility and to provide emergency escape. Figure F1-1, Pier 91 Facility Site Plan, shows the facility walls, fences and gates in plan view. The plant is illuminated by automatic outdoor lighting.

Parking for visitors/employees is north of the Warehouse/Office Bldg. 19. Access to the active dangerous waste portion of the facility is restricted to waste transportation vehicles and authorized personnel and visitors. Gates providing access to the active portion of the facility are always kept closed and after operating hours all gates are closed and locked. The locks are heavy-





Chemical Processors, Inc.  
Pier 91 Facility

**Pier 91 Facility  
Site Plan**

Figure F1-1



duty units keyed alike. Only authorized personnel are issued keys, each key is stamped "DO NOT DUPLICATE", and issued keys are logged.

The Port of Seattle provides 24-hour controlled access to the Port and Pier 91. All entrances to the Port are manned by guards, and the guards periodically patrol the area of the facility. Port of Seattle security has instructions for notification of Chemical Processors staff in emergency and operational situations.

#### F1.2 Warning Signs

40 CFR 264.14(c)

WAC 173-303-310(2)(a)

Signs printed with the legend, "Danger - Unauthorized Personnel Keep Out" are posted approximately every 50 feet along the perimeter walls, fence and gates into the active portion of the facility. The signs are visible from a distance of 25 feet and from all approaches to the active facility. They are attached to the walls, fence and gates at a height of approximately five feet.



## F2.0 INSPECTION SCHEDULE

40 CFR 264.15(a), (b), (c), (d), 270.14(b) (5)  
WAC 173-303-320(1), (2), (3), 395(1)(d), 806(4)(a)(v),  
200(1)(e)

The inspection plan is intended to detect and prevent system and equipment malfunctions and deteriorations, operator errors and unplanned discharges, which without remedial action may lead to a situation where public health or the environment are threatened. The inspection schedule is based on operational experience and engineering knowledge of the facility's systems and equipment, and the rate of possible deterioration. Per requirements of WAC 173-303-395(1)(d), in areas where ignitable wastes are stored, inspections occur at least annually by, or in the presence of a professional familiar with the Uniform Fire Code. Observations made during these inspections and remedial actions taken as a result are entered in the inspection record along with the date and time of the inspections, and the name of the official. The inspection schedule of the Pier 91 Facility is kept at the facility.

General inspection requirements cover facility equipment categorized as safety and emergency, security, and operational equipment that are vital to prevent, detect and respond to environmental or public health hazards. Specific process inspections address facility waste management units which include the tank system and the container storage area used for temporary (<90 days) storage.

Safety and emergency equipment is checked daily for access and readiness in the event of an emergency. The facility security system and measures are inspected daily. Operational equipment is inspected before use to ensure safe operation, and regular scheduled servicing is completed to



maintain the equipment in good operational condition. Areas subject to spills such as the loading/unloading area, container storage area and tank system are inspected daily when in use.

The sumps and secondary containment structures provided for all tank and container storage and treatment systems are visually inspected daily during operational hours, and at a minimum every 24 hours during non-operational hours, for leakage or accumulated liquids. In this way leaked material and precipitation can be detected within 24 hours and removed in a timely manner.

The inspection observation and frequency of the general facility equipment is described in Section F2.1. Sumps and secondary containment structures inspections are included with the specific process equipment inspections in Section F2.2.

Examples of the inspection forms used at the Pier 91 Facility are provided in Appendices F-1 through F-5. The inspection forms are designed to address all pertinent items/features of the equipment to ensure their safe operation and readiness. The inspection forms are periodically updated and modified to accommodate the changing needs of the facility.

The plant manager is responsible for the continual implementation of the inspection program. The plant manager has the training and authority to implement the required inspections, perform necessary evaluations and hazard assessments and recommend appropriate corrective or remedial actions. Specific duties may be delegated by the plant manager to employees under his supervision who are trained to perform such duties.



If a periodic inspection (e.g. daily, weekly) indicates a system or equipment malfunction, deterioration or other improper condition the following procedure for repair or remediation is followed.

The inspector notes and describes the situation in the comments column of the inspection form. The inspection forms are reviewed by a supervisor. A numbered maintenance request form is issued outlining the appropriate repair/remedial action for the problem or improper condition, and a response level is assigned for its completion. An urgent response level (Priority 1) indicates the repair/remedial action is to be initiated immediately and closely monitored until completion. If there is an urgent situation (e.g. leaking container) where a direct response by an employee or inspector discovering the situation is necessary, the situation will first be brought under control, after which the maintenance request form will be completed noting the situation and corrective action taken. Routine response levels (Priority 2) for repair/remedial actions are typically expected to be completed within the week following their detection. Physical or operational constraints such as availability of replacement parts or equipment may require longer routine repair/remediation times.

The number on the maintenance request form is written at the head of the inspection form and in the comments column adjacent to the inspector's notes describing the observed system or equipment malfunction, deterioration or other improper condition.



A log is kept of the issued maintenance request forms to assure that required repairs/remedial actions are taken. An example of a maintenance request form is provided in Appendix F-6.

In cases where specialized outside contractors are needed to perform specific inspections (e.g. foamite system), the results will be reported on the contractor's inspection forms, checked off on the Chemical Processors inspection form and made part of the formal inspection records. Chemical Processors reserves the right to change contractors to provide equivalent services without notice.

Copies of the inspection forms, maintenance request forms and log are kept at the facility for a minimum of three years.

#### F2.1 General Inspection Requirements

40 CFR 264.15(b)(1),(3),(4), 264.33

WAC 173-303-320(2)(b),(c)

General inspection requirements cover facility equipment categorized as safety and emergency, security, and operational equipment that are vital to prevent, detect and respond to environmental or public health hazards.

Safety and emergency equipment is checked daily for access and readiness in the event of an emergency. The facility security system and measures are inspected daily. Operational equipment is inspected before use to ensure safe operation, and regular scheduled servicing is completed to maintain the equipment in good operational condition.



The inspection observations and frequency of the general facility equipment is described in Tables F2-1 through F2-3, and examples of the inspection forms are located in Appendices F-1 through F-3.

## F2.2 Specific Process Inspection Requirements

### F2.2.1 Container Inspection Schedule

Revised, January 1990

40 CFR 264.15(b)(3),(4), 264.174

WAC 173-303-320(2)(b),(c), 630(3),(6), 200(1)(e)

The containers, storage area and sumps are inspected for leaks, spills, accumulated liquids, physical deterioration, corrosion and coating integrity. Labels on containers are checked to ensure they are visible, legible and in place. Also noted are the proper stacking arrangements and aisle spacing.

Containers storing dangerous wastes are labeled in accordance with Department of Transportation (DOT), Environmental Protection Agency (EPA) and Washington Department of Ecology (Ecology) regulations. When a container has been emptied and residues removed in accordance with DOT, EPA and Ecology regulations, the labels are completely removed and destroyed.

The specific inspection observations and frequency of the container storage area are described in Table F2-4, and examples of inspection forms are located in Appendix F-4.



TABLE F2-1. INSPECTION SCHEDULE FOR SAFETY  
AND EMERGENCY EQUIPMENT

Sheet 1 of 2

EQUIPMENT/AREA	INSPECTION OBSERVATION	FREQUENCY
Absorbent Materials	- Check for minimum stock quantities at storage locations	- Weekly
Overpack Drums	- Check for minimum stock quantity at storage locations	- Weekly
Spill Response Kits	- Check that units are in place and complete	- Daily
Equipment Storage Areas	- Check for minimum stock quantities of hand tools, protective clothing, other	- Monthly
First Aid Kits	- Check accessibility - Check for adequate stock, restock as needed	- Daily - Weekly
Emergency Showers and Eye Wash Stations	- Check pressure and flow volume, even flow/stream on eye wash, units turn on/off easily, adequate supply of eye wash fluid (where applicable), identification sign attached and legible	- Daily
Fire Extinguishers	- Check that units are in place, accessible and charged, servicing tags are attached and up to date	- Daily
Foamite System	- Start pump engines, run for 15 minutes, check fuel supply, condition of pumps, engines - Verify annual contractor services have been completed	- Weekly - Quarterly



TABLE F2-1. (concluded)

Sheet 2 of 2

EQUIPMENT/AREA	INSPECTION OBSERVATION	FREQUENCY
Emergency Lighting/Lanterns	- Test AC/battery units and lanterns for operability, light at full intensity	- Monthly
Alarm Horns	- Verify that units are operational and audible	- Weekly
Telephone/Intercom (PA)	- Verify that phone units are capable of acquiring an outside line and activating the PA system	- Weekly
	- Verify that PA speakers are audible and working	- Weekly
	- Test phone system battery back up for operation. Unplug power supply to unit, operate telephone/intercom under battery power	- Monthly
	- Check water level in batteries of battery back up system	- Quarterly
Two-Way Radios	- Verify that units are able to send and receive to/from each unit, battery chargers operational	- Weekly



TABLE F2-2. INSPECTION SCHEDULE FOR SECURITY EQUIPMENT

Sheet 1 of 1

EQUIPMENT/AREA	INSPECTION OBSERVATION	FREQUENCY
Fences	- Check for holes, breaches, integrity	- Daily
Gates	- Check for operability, holes, breaches, integrity, unobstructed access	- Daily
Locks (gates)	- Verify locks are in place, operable and not tampered with	- Daily
Outdoor Lighting	- Verify lights turn on/off at dark and daylight, full brightness	- Daily
Facility Access	- Check general access throughout facility for unobstructed movement of emergency vehicles, personnel and equipment	- Daily
Warning/Regulatory Signs	- Verify signs on perimeter barriers are in place and legible	- Daily



TABLE F2-3. INSPECTION SCHEDULE FOR OPERATIONAL EQUIPMENT

Sheet 1 of 1

EQUIPMENT/AREA	INSPECTION OBSERVATION	FREQUENCY
Portable Transfer Pumps	<ul style="list-style-type: none"> <li>- Check for leaks, proper operation, check oil level</li> <li>- Account for all units, are all units in working order</li> </ul>	<ul style="list-style-type: none"> <li>- Before/during use</li> <li>- Weekly</li> </ul>
Portable Transfer Hoses	<ul style="list-style-type: none"> <li>- Check for wear, leaks in hose or at fittings</li> <li>- Check for adequate supply</li> </ul>	<ul style="list-style-type: none"> <li>- Before/during use</li> <li>- Weekly</li> </ul>
Drip Buckets	<ul style="list-style-type: none"> <li>- Check for adequate supply and check condition</li> </ul>	<ul style="list-style-type: none"> <li>- Weekly</li> </ul>
Fork lift	<ul style="list-style-type: none"> <li>- Check oil, hydraulic fluid, water, tire pressure, lights, horn, back up alarm, general operability</li> <li>- Check service file for next scheduled maintenance</li> </ul>	<ul style="list-style-type: none"> <li>- Weekly</li> <li>- Monthly</li> </ul>
Facility Air Compressor	<ul style="list-style-type: none"> <li>- Check oil, temperature, pressure, drain condensate</li> <li>- Check for oil leaks, test safety valves, clean air filter, cylinder fins and unit, change oil</li> </ul>	<ul style="list-style-type: none"> <li>- Daily</li> <li>- Monthly</li> </ul>
Facility Pumps (mounted)	<ul style="list-style-type: none"> <li>- Check for leaks, noises, proper operation, empty strainers (where applicable), note any evidence of corrosion</li> <li>- Grease units, check packing, change as needed</li> </ul>	<ul style="list-style-type: none"> <li>- Before/during use</li> <li>- Weekly</li> </ul>
Electrical Control Panels	<ul style="list-style-type: none"> <li>- Check access to breaker panel and general condition of unit/area</li> </ul>	<ul style="list-style-type: none"> <li>- Daily</li> </ul>
Sanitary Sewer Discharge	<ul style="list-style-type: none"> <li>- Check that meter is operational, no leaks</li> <li>- Verify that discharge records are up to date</li> </ul>	<ul style="list-style-type: none"> <li>- When in use</li> <li>- Weekly</li> </ul>







TABLE F2-4. CONTAINER INSPECTION SCHEDULE

EQUIPMENT/AREA	INSPECTION OBSERVATION	FREQUENCY
Containers	- Check for leaks, swelling, deterioration, corrosion, and open lids	- Weekly
	- Check that labels are visible, legible and in place	- Weekly
	- Check for proper stacking and incompatible storage	- Weekly
	- Check marked date of storage	- Weekly
Container Storage Area	- Check sump and containment structure for evidence of leakage, spills or accumulated liquids	- Daily
	- Check pad, berms, curbs, sumps and coatings for evidence of cracks, gaps, integrity, deterioration and corrosion or erosion	- Weekly

F2.2.2 Tank System Inspection Schedule

Revised, July 1990

40 CFR 264.194(b)(1),(2), 264.195(a),(b)(1),(2),(3)

WAC 173-303-640(4)(a)(i),(ii),(iv),(v)

The tank construction materials are inspected for leaking fixtures or seams, rust and corrosion or erosion. The area surrounding the tanks including the loading area, secondary containment structures and tank system piping and controls (ancillary equipment) are checked for integrity, deterioration and corrosion or erosion, obvious signs of leakage or spills and debris or vegetation accumulations. Overfilling control equipment is inspected to ensure good working order.



To ensure tanks are operated according to design specifications, waste streams are tested through Quality Assurance/Quality Control (QA/QC) procedures of the Waste Analysis Plan (see Section C) prior to unloading into the tanks and during treatment.

Tank condition assessment to detect corrosion, cracks, vessel integrity and wall thinning over time, is addressed in Section F2.2.3.

The centrifuge is inspected daily when in use. The unit is checked for proper operation, machinery maintenance and service, structural integrity, deterioration, corrosion or erosion and evidence of leakage or spills.

The activated carbon adsorption system used for removal of organics from tank venting will be tested weekly. A Gastech model 1214, or equivalent, will measure total hydrocarbon content at sampling ports in vent piping before the first carbon adsorber, and between the first and second adsorbers. When the carbon adsorption system's removal efficiency falls to 50 percent, a new carbon absorber will be installed. A program for monitoring, testing, repair and recordkeeping associated with air emissions from process vents and equipment leaks is included as Appendix F-8, Air Emission Monitoring Plan for Process Vents and Equipment Leaks. The specific inspection observations and frequency of the tank system are described in Table F2-5, and examples of the inspection forms are located in Appendix F-5.



TABLE F2-5. TANK SYSTEM INSPECTION SCHEDULE  
Revised, July 1990

Sheet 1 of 2

EQUIPMENT/AREA	INSPECTION OBSERVATION	FREQUENCY
Tank Overfilling Control Equipment	- Move level indicator on gauge boards up and down by hand to ensure internal float raises and lowers easily (where applicable)	- Daily
	- Test alarm panel and units on individual tanks for proper function to include activation of warning/indicator lights and audible alarm when high levels are attained	- Daily
Tank Monitoring Data	- Test incoming waste loads in accordance with WAP (e.g., pH, specific gravity, temperature) to determine proper storage/treatment tank and process	- Before unloading
	- Inspect tank change logs and treatment/analysis records noting pH, specific gravity and temperature to ensure proper safe operation and treatment application of tanks, piping and ancillary equipment	- Daily, during, treatment
Tank Construction Materials	- Check tank base, walls and seams for rust and corrosion or erosion, leaks and evidence of overflow	- Daily
	- Check tank valves, fittings and fixtures for rust and corrosion or erosion and leaks	- Daily
Tank System Loading/Unloading Area	- Check pad, berms, curbs, sump and coatings for evidence of leakage, spills or accumulated liquids, cracks, gaps, integrity, deterioration and corrosion or erosion - Check availability of spill prevention control device.	- Daily, when in use



TABLE F2-5. (continued)

Sheet 2 of 2

EQUIPMENT/AREA	INSPECTION OBSERVATION	FREQUENCY
Tank System Secondary Containment System	- Check pad, berms, curbs, sumps and coatings for evidence of leakage, spills or accumulated liquids, cracks, gaps, integrity, deterioration and corrosion or erosion, debris or vegetation accumulation	- Daily
Tank System Piping and Controls (ancillary equipment)	- Check piping, valves, fittings, fixtures and pipe supports for evidence of leakage, spills or accumulated liquids, integrity, deterioration and corrosion or erosion	- Daily
General Area	- Walk perimeter of tank system, container storage, and loading/unloading pad containment areas noting evidence of leakage and spills and debris or vegetation accumulation, check asile space, access to fire extinguishers and exits/entrances	- Daily
Centrifuge	- Verify voltage draw alarm operative, emergency water flush and actuator valve works, smooth bowl operation, conveyer and centrate pump operational, grease bearings	- Daily, when in use
Carbon Absorption System	Take total hydrocarbon analysis and determine removal efficiency.	- Weekly



### F2.2.3 Tank Condition Assessment

Revised, January 1990

WAC 173-303-640(2)(e)

The condition of tanks used to store or treat dangerous waste is periodically assessed over the life of the tank to ensure that the tank retains its structural integrity and will not collapse, rupture or fail. The inspection frequency is based on the age of the tank system, materials of construction, type of corrosion or erosion protection used (where applicable), historical and/or estimated data on corrosion rates, the nature of the material stored/treated within and the threat to public health posed by a release of the contents due to vessel failure. The assessment schedule and procedures are adequate to detect cracks, leaks, corrosion or erosion. The schedule and assessment procedures and methods are discussed in this section.

In order to determine the assessment frequency, the tanks are classified into three ratings based on the criteria discussed above. Rating "A" tanks provide lethal and highly toxic service posing the most severe risk in the event of a failure. Rating "B" tanks pose a moderate to high risk from a tank failure and rating "C" poses a low to moderate hazard potential. Specific rating classifications for all existing and proposed tanks are listed in Table F2-6.

The method and the frequency of the inspection and assessment of a tank's wall thickness and integrity is directly related to its rating classification. The inspection schedule for the assessment of the tanks is summarized in Table F2-7, Tank Assessment Schedule. Tank inspection methods are based on American Petroleum Institute, Guide for Inspection of Refinery Equipment, 821 series, or American Society of Testing Materials (ASTM) standards.



TABLE F2-6. RATING CLASSIFICATIONS OF TANKS

Sheet 1 of 1

TANK NO.	CONSTRUCTION MATERIAL	USAGE	RATING
2101-2104	Carbon Steel	Oil/Coolant Emulsion Storage	C
2201-2203	Carbon Steel <sup>(a)</sup>	Industrial Wastewater Storage	C
2204	Carbon Steel <sup>(a)</sup>	Isolation Storage	B
2301-2310, 2313	Carbon Steel	Heated Treatment/Storage	C
2311, 2312	Carbon Steel <sup>(a)</sup>	Metals Treatment/Storage	C
2401, 2402	Carbon Steel <sup>(a)</sup>	Sludge Storage	C
2501	Polyethylene	Treatment Chemical Storage	N/A
2502	Polyethylene	Treatment Chemical Mixing	N/A
2503	Carbon Steel	Treatment Chemical Storage	N/A
2603	Carbon Steel <sup>(a)</sup>	Biological Treatment Unit	N/A
2701, 2705, 2707	Carbon Steel	Industrial Wastewater Treatment/Storage	C
2703, 2708-2710	Carbon Steel	Waste Oil Treatment/Storage	C
2706	Carbon Steel	Oil/Coolant Treatment/Storage	C
2709 <sup>(a)</sup> , 2710 <sup>(a)</sup>	Carbon Steel	Industrial Wastewater Treatment/Storage	C
2901	Carbon Steel <sup>(a)</sup>	Treated Wastewater Storage	N/A

(a) Tanks with a coating applied to the interior.

N/A Not Applicable, tanks are not RCRA-regulated.



TABLE F2-7. TANK ASSESSMENT SCHEDULE  
Revised, January 1990, November 1991

Sheet 1 of 1

RATING	CONSTRUCTION MATERIAL	INSPECTION METHOD	INSPECTION FREQUENCY
A	Carbon Steel, non-coated or non-lined	Ultrasonic Visual	1 year 2 years
A	Carbon Steel, coated	Corrosion Coupon Visual	1 year 2 years
A	Carbon Steel, lined	Corrosion Coupon Visual	1 year 2 years
A	Polyethylene	Visual	1 year
B	Carbon Steel, non-coated or non-lined	Ultrasonic Visual	2 years 2 years
B	Carbon Steel, coated or lined	Corrosion Coupon Visual	1 year 4 years
B	Polyethylene	Visual	2 years
C	Carbon Steel, non-coated or non-lined	Ultrasonic Visual	3 years 3 years
C	Carbon Steel, coated or lined	Corrosion Coupon Visual	1 year 6 years
C	Polyethylene	Visual	2 years



Coated or lined carbon steel tanks are provided with corrosion coupons which are inspected annually. These tanks also undergo an interior and external visual inspection for coating adhesion, blistering and integrity (where applicable), and for integrity of welded seams every two, four or six years based on their rating. The interior visual inspection requires emptying and entering the tank. The coating/liner protects the tank walls from the corrosive or erosive effects of the tank contents and the possible resultant wall thinning.

Ultrasonic testing is used on non-coated/lined carbon steel tanks to measure wall thickness. Ultrasonic testing is performed every one year on rating "A" tanks and every two or three years on rating "B" and "C" tanks respectively.

Ultrasonic testing is a non-destructive method. This testing technology is not affected by the contents of the tank. Therefore, it is not necessary that the tank be emptied prior to testing or that anyone enter the tank to determine the extent of wall thinning.

#### Coupon Inspection Method

Coated and lined tanks are provided with corrosion coupons which are coated or lined with the identical material covering the interior of the tank. The coupons are positioned in the lower, middle and upper thirds of the tank to ensure that all physical zones of operation (liquid space, liquid/gas interface, headspace) are tested.

The coupons are pulled once per year and visually inspected for coating or liner adhesion, blistering, corrosion or erosion and integrity. If a corrosion coupon inspection indicates a coating or liner failure, an interior visual inspection of the tank will commence within 90 days.



### Visual Inspection Method

All tanks are visually inspected to identify and monitor erosion/corrosion of the interior and exterior surfaces, coating adhesion and integrity (where applicable), and integrity of welded seams. The tank is divided into three vertical zones of operation, the liquid space, liquid/gas interface, and the headspace zones. Each area is divided into four quadrants, N(0 degrees), E(90 degrees), S(180 degrees), and W(270 degrees), resulting in 12 inspection areas. In addition, areas of high erosion potential such as dip pipe discharge and inlet piping or baffles will also be inspected. Tank emptying and entry procedures are described later in this section.

### Ultrasonic Testing Method

Ultrasonic testing uses pulse wave reflection from a metal's surface to measure thickness via residence time to send and receive the pulse. Measurements are made at locations around the circumference of the tank at quadrants corresponding to N(0 degrees), E(90 degrees), S(180 degrees), and W(270 degrees). At each radial location defined above, starting from the bottom and extending upwards, measurements are taken at distances equal to 1/4 of the height of the tank. The exact measurement locations within the 16 segmented areas are initially selected for each tank by random number selection. The measurement locations selected are documented for all future testing of each tank. To guard against misleading or inaccurate results, ultrasonic measurements are not taken near any portion of a tank which has undergone metal deformation such as welded seams or abutments. Ultrasonic data obtained during tank testing is recorded and used to calculate the percentage of corrosion thinning on the sidewalls. As a succession of measurements over time are performed, the rate of corrosion and life of the tank is forecasted.



## Tank Entry Procedures

When a tank is inspected or repaired from the inside, the tank must be emptied and a confined space entry procedure followed. This procedure is described below.

Prior to entry all free liquids and sludges are pumped from the tank to another compatible tank. The tank is isolated by locking, blanking or removing all directly connected fill, suction, purge treating or other lines and piping to and from the tank. When this is not possible, double block valves with a bleed between the valves are used. In addition, all ignition sources are removed. Once the tank has been isolated it is cleaned and purged of all residues and air-ventilated.

Following this step, the air is tested for oxygen deficiency, combustibility and toxicity to check for safe entry conditions. A Gastech model 1214 combustible gas and oxygen deficiency detector or the equivalent is used for these tests. Under current practices tank entry does not proceed unless 0 percent of the Lower Explosive Limit (LEL) is achieved, and unless the oxygen content is 20.9 percent. A multi-gas detector with Drager Colormetric tubes or the equivalent is used to screen or check for toxic conditions in the tank. Tank entry does not proceed if toxicity levels are at or above the lowest allowable concentration specified by the Occupational Safety and Health Administration (OSHA), National Institute of Occupational Safety and Health (NIOSH), American Conference of Governmental and Industrial Hygienists (ACGIH), or state standards. Deviation from these procedures occurs only after review and approval by the Chemical Processors, Inc. corporate Health and Safety Officer, with additional requirements specified to mitigate potential effects of the deviation.

A continuous flow of fresh air ventilation is pumped through the tank (bottom to top or top to bottom) at all times, and the air



is continuously monitored for oxygen deficiency and combustibility. Toxicity checks are performed periodically.

All employees working within the tank are required to wear protection for the eyes, face, hands and ears, either rubber or acid resistant protective clothing, and appropriate respiratory protection. Employees also wear a safety harness with lifeline. At all times while workers are inside the tank, an observer suitably equipped for entry and trained in emergency procedures (including first aid) is stationed outside the tank.

During tank repair, all gas cylinders or welding machines are left outside of the tank. Torches, hoses, cables and electrodes may be taken inside the tank. Electrical equipment used inside the tank is properly grounded and in safe condition. Double-insulated electrical tools are acceptable as properly grounded.

Additional equipment at the job site includes fire extinguishers, extra rope, harnesses and supplied air respiratory protective equipment.



## F3.0 PREPAREDNESS AND PREVENTION MEASURES

### F3.1 Equipment Requirements

#### F3.1.1 Internal Communications

40 CFR 264.32(a)

WAC 173-303-340(1)(a)

The plant is equipped with a facility-wide telephone system with intercom paging both phone-to-phone and via public address (PA) loudspeakers mounted inside/outside. Two-way radios are also available for use facility wide. The telephone and radio systems are capable of providing immediate instruction to personnel. The telephone located outside in the dangerous waste tank system is protected from exposure by a weatherproof box and is labeled externally as such. Intercom/paging (PA) numbers, emergency response phone numbers for police, fire and ambulance and Chemical Processors, Inc. phone numbers are posted at or near telephones.

The telephone system is equipped with battery back up should power be lost. The batteries will provide power to the complete phone system for 48 hours. The system switches on automatically if AC power is lost. Battery charge is maintained by AC power on a continuous basis.

In addition to the telephone intercom/paging equipment, an alarm system using hand-held compressed gas air horns is in place. Horns of this type are audible up to a distance of one mile. Horns are located at or near telephone boxes and in additional key locations around the plant.

Figure F3-1 indicates the locations of telephone/intercoms and alarm horns throughout the plant.



### F3.1.2 External Communications

40 CFR 264.32(b)

WAC 173-303-340(1)(b)

Each telephone located throughout the plant is capable of direct dialing to emergency response groups such as police, fire and ambulance. The outside telephone is mounted in a weatherproof box and labeled externally as such. Emergency response phone numbers for police, fire and ambulance, Chemical Processors, Inc. phone numbers and intercom/paging (PA) numbers are posted at or near telephones.

As described in Section F3.1.1, the telephone system is equipped with battery back up should power be lost. The batteries will provide power to the complete telephone system for 48 hours. The system switches on automatically if AC power is lost. Battery charge is maintained by AC power on a continuous basis.

Figure F3-1 indicates the locations of telephone/intercoms throughout the plant.

### F3.1.3 Emergency Equipment

Revised, July 1991

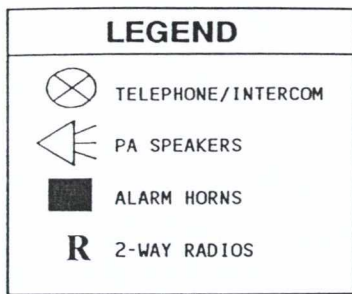
40 CFR 264.32(c)

WAC 173-303-340(1)(c)

Equipment used for spill and emergency response is readily available, and inspected regularly for access and operability in the event of an emergency situation.

Spill response equipment including absorbent materials, overpack drums, respirators, protective clothing and various hand tools are stored in Warehouse Bldg. 19 and the dangerous waste area. Mobile equipment such as portable pumps and a fork lift are available for use as well.

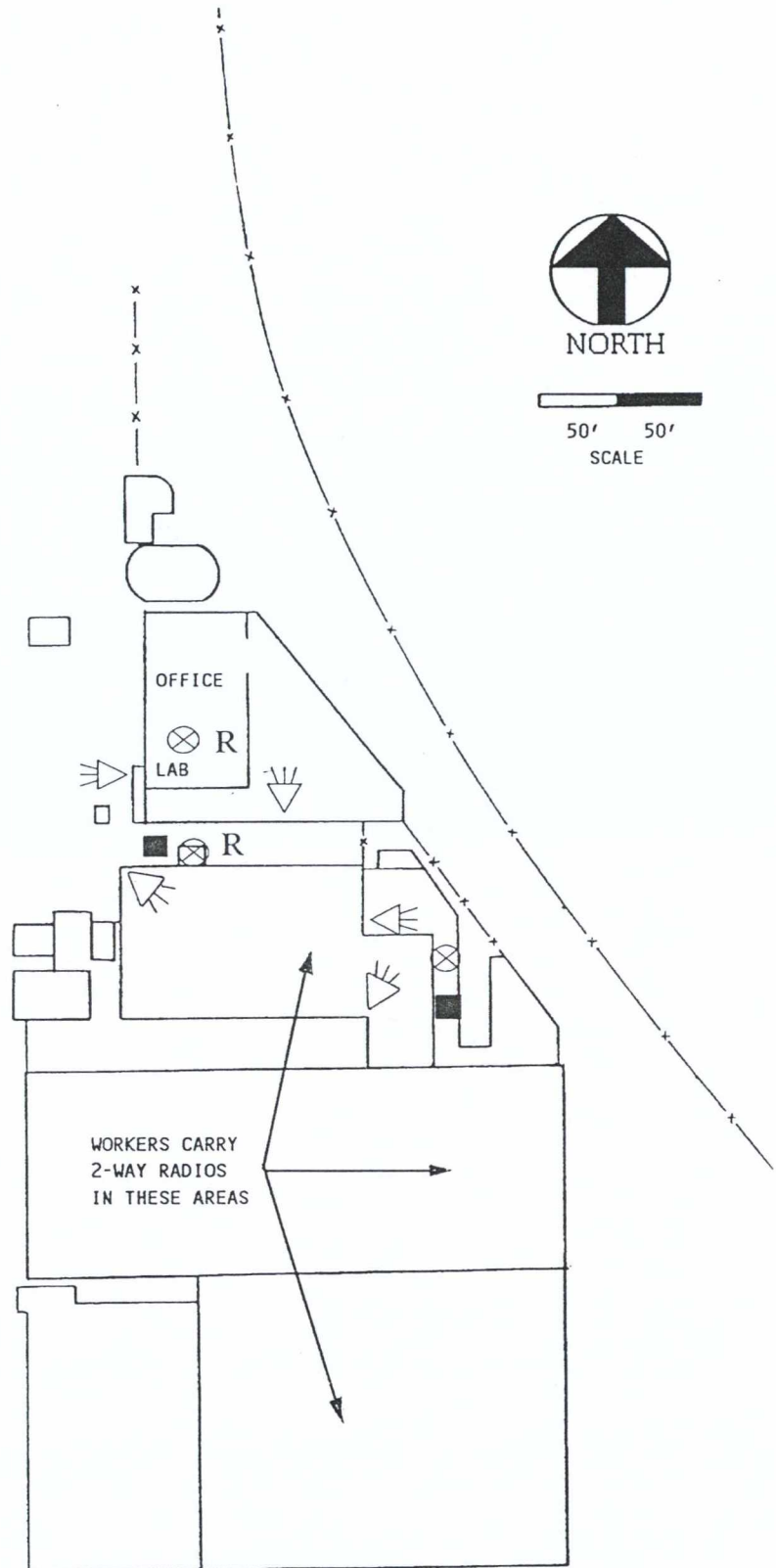
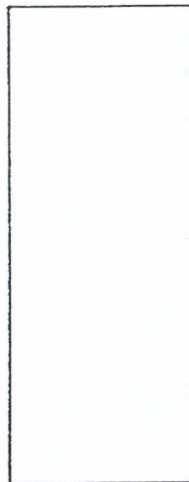
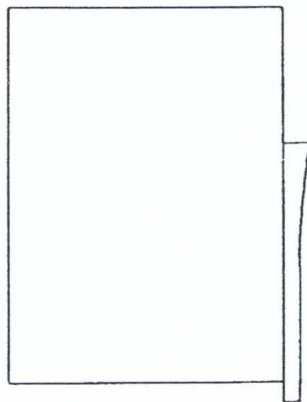




NORTH



50' 50'  
SCALE



WORKERS CARRY  
2-WAY RADIOS  
IN THESE AREAS

WEST GARFIELD STREET VIADUCT

Chemical Processors, Inc.  
Pier 91 Facility

Locations of Telephones/  
Intercoms & Alarm Horns

Figure F3-1



Portable fire extinguishers of various sizes, types and capabilities are in place at key locations throughout the plant. A manually activated foamite fire suppressant system is installed in the existing RCRA facility and in oil tanks in the non-hazardous portion of the facility. The system includes separate hose outlets throughout the plant. Automatic fire control equipment complying with the local fire code will be installed where required. Fire hydrants of adequate volume and pressure are located on and adjacent to facility grounds. First aid kits are readily available. Emergency showers and eye wash stations are installed in the dangerous waste area and throughout the plant.

Table F3-1 lists the emergency equipment maintained at the Pier 91 Facility. Figure F3-2, Locations of Emergency Equipment and Figure F3-3, Locations of Fire Control Equipment, show the locations of this equipment.

#### F3.1.4 Water for Fire Control

40 CFR 264.32(d)

WAC 173-303-340(1)(d)

There are several fire hydrants located at the Pier 91 facility. The hydrants are maintained by the Port of Seattle and produce 7600 gallons per minute (gpm) at 20 pounds per square inch (psi). The Port of Seattle flows the hydrants on a semi-annual basis.

The foamite system consists of a 100,000 gallon water supply tank, a 500 gallon foamite tank and two propane powered pumps. The water tank has a level sensor and automatic re-fill system. The pump engines are started weekly and run for 15 minutes. The entire foamite system is inspected and certified annually by a contract service.



TABLE F3-1. EMERGENCY EQUIPMENT, PIER 91 FACILITY

Sheet 1 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Absorbent Materials	whse. bldg. 19	- free liquid absorption, diking, spill containment
- diatomaceous earth	"	- "quick sorb", "sorb oil" - 33 lb. bags, stock 30 total
- 3M pads	"	- oil absorbent, water repellent - stock 100 total
Overpack Drums	DW area, whse. bldg. 19	- contain leaking drums - 85 gal. - stock 5 total
Spill Response Kits	DW area, whse. bldg. 19	- clean up small spills, drips - drum containing absorbent and shovel
Hand Tools	whse. bldg. 19 maintenance area	
- brooms	"	- clean up - hand and push type, stock 4 total
- shovels	whse. bldg. 19 maintenance area, spill response kits	- spreading, digging - spade and flat blades, stock 8 total
- squeegees	"	- corral free liquids - stock 4 total



TABLE F3-1. (continued)

Sheet 2 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
- scrapers	"	- scraping, chipping - stock 3 total
- wheelbarrow	"	- hauling, consolidation - stock 1 each
- visqueen (plastic)	"	- protection from exposure - appx. 32 x 100 ft. rolls - stock 1 roll
- barrier tape	"	- sealing off areas - high visability, printed with caution warning - stock 500-1000 feet
Portable Transfer Pump	mobile unit, near loading areas	- liquid removal and transfer - 3 inch, diesel powered, centrifugal - stock 1 each
Portable Transfer Hoses	loading/unloading tank system containment areas	- liquid removal and transfer - 2 to 4 inch, wire ribbed, cross link polyethylene, rubber - 100-200 feet total
Drip Buckets	loading/unloading areas primarily	- contain small drips, leaks - 5 to 10 gal. - 5 total



TABLE F3-1. (continued)

Sheet 3 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Respirator Cartridges	equipment storage room, bldg. 19	<ul style="list-style-type: none"><li>- vapor, fume, dust protection</li><li>- organic, hepa; disposable</li><li>- stock 10-20 each</li></ul>
Gloves	"	<ul style="list-style-type: none"><li>- protection from exposure</li><li>- latex or cotton</li><li>- stock 10-20 pair</li></ul>
Boots	"	<ul style="list-style-type: none"><li>- protection from exposure</li><li>- steel toed, rubber</li><li>- stock 2-4 extra pair</li></ul>
Rain Suits	"	<ul style="list-style-type: none"><li>- protection from exposures</li><li>- neoprene, jackets and pants</li><li>- stock 2-10 extra suits</li></ul>
Hearing Protection	"	<ul style="list-style-type: none"><li>- foam plug type</li><li>- stock 1 box</li></ul>
First Aid Kits	plant office, DW area, operations office	<ul style="list-style-type: none"><li>- on-site first aid, minor injuries</li></ul>
Eye Wash Stations and Showers	see Figure F3-2	<ul style="list-style-type: none"><li>- decontamination, emergency aid</li><li>- located at possible exposure areas, easily accessible</li></ul>
Fire Hydrants	see Figure F3-2	<ul style="list-style-type: none"><li>- fire control water supply</li><li>- several hydrants on and adjacent to facility grounds</li></ul>



TABLE F3-1. (continued)

Sheet 4 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Foamite System	see Figure F3-3	<ul style="list-style-type: none"><li>- fire suppressant system plumbed directly into tanks (Non-RCRA only) and with separate hose outlets throughout facility</li><li>- independent water supply tank, and fuel powered pumps</li><li>- manually activated and controlled by manifolds</li></ul>
Fire Extinguishers	see Figure F3-3	<ul style="list-style-type: none"><li>- portable, multi and specific purpose, size and type; A=ordinary combustibile, B=flammable liquids, C=electrical</li></ul>
#1	laboratory, bldg. 19	10 lb. ABC
#2	locker room, bldg. 19	10 lb. ABC
#3	north entrance ramp, bldg. 19	20 lb. ABC
#4	north end whse., bldg. 19	20 lb. ABC
#5	center west wall whse., bldg. 19	20 lb. ABC
#6	outside shop, bldg. 19	10 lb. ABC
#7	inside shop, bldg. 19	1.7 lb., Halon, BC
#8	east loading dock, bldg. 19	20 lb. ABC



TABLE F3-1. (continued)

Sheet 5 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
#9	southwest wall whse., bldg. 19	20 lb. ABC
#10	north wall inside boiler room, bldg. 19	20 lb. ABC
#11	operations office	6 lb. BC
#12	welding cart	2 1/2 lb. ABC
#13	electrical control bldg. 25	20 lb. ABC
#14	foamite/pump bldg.	10 lb. ABC
planned	DW loading/unloading area	ABC type
"	DW area, north end	ABC type
"	DW area, south end	ABC type
Alarm Horns	see Figure F3-1	<ul style="list-style-type: none"> <li>- compressed CO<sub>2</sub> air horns</li> <li>- reliable, simple operation, self contained</li> <li>- audible up to one mile away</li> </ul>
Telephone/Intercom and Public Address Speakers	see Figure F3-1	<ul style="list-style-type: none"> <li>- voice communication, warning and direction</li> <li>- all phones capable of intercom access and outside dialing</li> <li>- phone system equipped with battery back up</li> </ul>

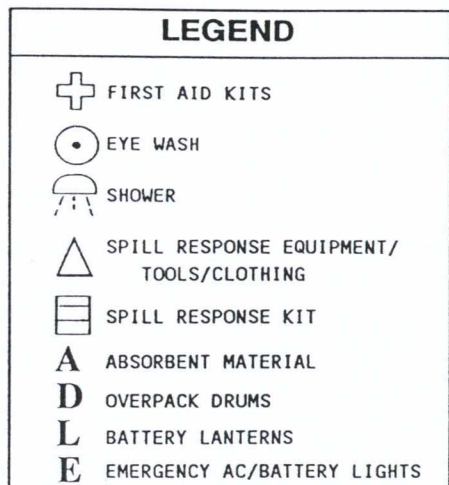


TABLE F3-1. (concluded)

Sheet 6 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Two-Way Radios	main office, mobile units	<ul style="list-style-type: none"><li>- voice communication, warning and direction, kept on person</li><li>- battery powered, on charge when not in use</li></ul>
Emergency Lighting and Lanterns	see Figure F3-2	<ul style="list-style-type: none"><li>- enclosed bldgs. have AC/battery lights, lanterns located outside throughout plant</li></ul>
Electrical Control Panels	DW area, electrical bldg. 25, boiler room bldg. 19	<ul style="list-style-type: none"><li>- circuit breaker panel for facility electrical system and equipment</li></ul>
Fork Lift	mobile unit	<ul style="list-style-type: none"><li>- general use, equipped with drum handling attachment</li></ul>

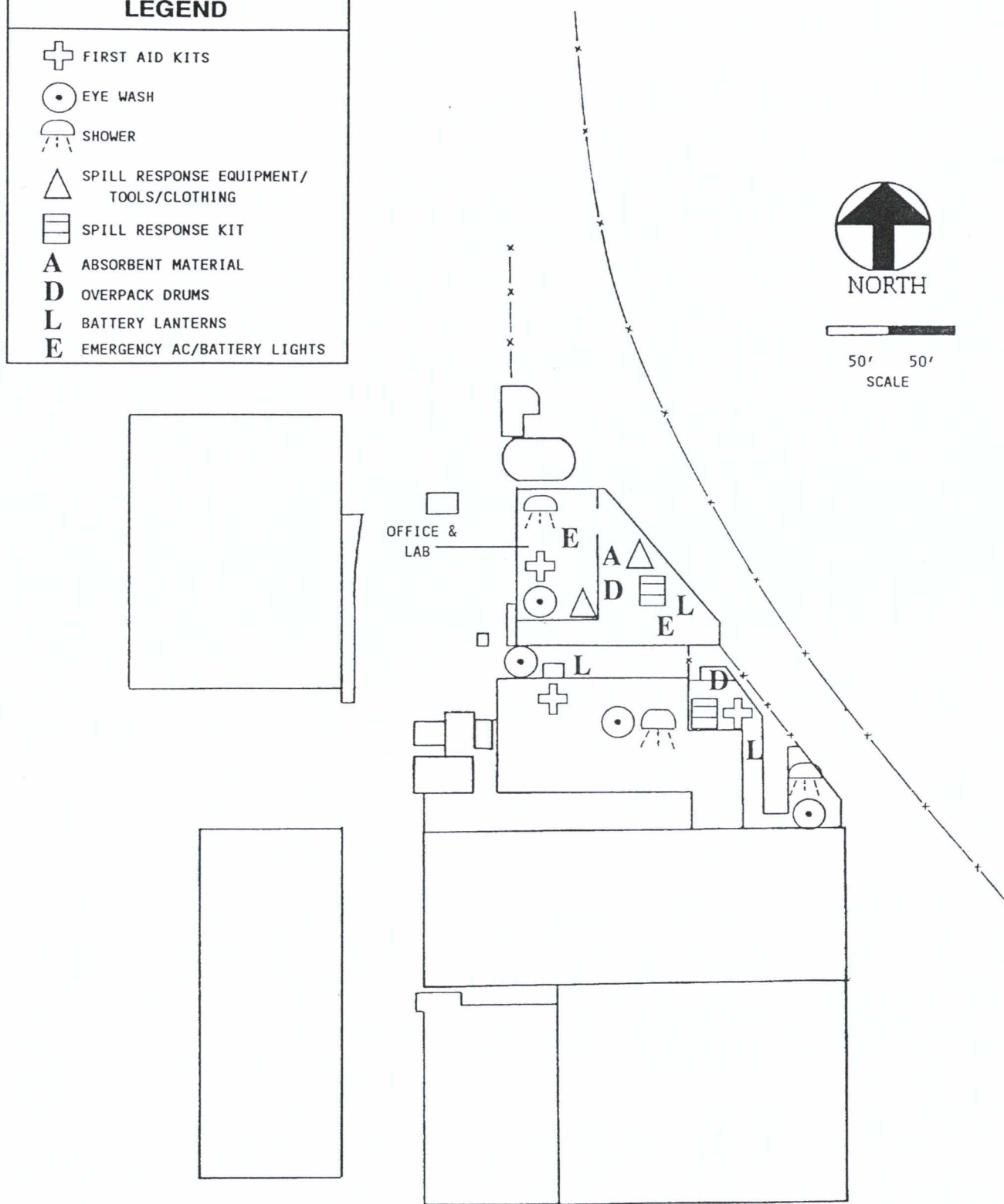




NORTH



50' 50'  
SCALE



Chemical Processors, Inc.  
Pier 91 Facility

**Locations of Emergency  
Equipment**

Figure F3-2







### F3.2 Aisle Space Requirements

40 CFR 264.35

WAC 173-303-340(3)

The facility is inspected for adequate aisle space, allowing unobstructed movement of emergency vehicles, personnel, and fire control/spill response equipment, and access to facility exits and entrances. Signs indicating fire access lanes and areas are posted throughout the facility.

Containers are stacked such that the main aisles are at least eight feet, side aisles four feet and aisles for access to any doors windows and fire control equipment at least three feet. The prescribed aisle spaces are painted on the pad itself.



#### F4.0 PREVENTION PROCEDURES, STRUCTURES AND EQUIPMENT

##### F4.1 Unloading Operations

40 CFR 270.14(b)(8)(i)

WAC 173-303-806(4)(a)(viii)(A)

Wastes are transported to and/or from the facility in tankers (bulk liquid waste), flat beds and vans (liquid and solid containerized waste). All loading and unloading operations of dangerous waste are conducted within a complete secondary containment structure. Facility personnel involved in the loading/unloading of waste are instructed in the proper operational procedures and use of equipment necessary to prevent hazards (see Section H, Personnel Training). Loading and unloading procedures are posted at the transfer location.

When tankers are loading or unloading, a minimum of two trained personnel are present at all times to watch for leaks, overfilling, or accidental disconnection of hoses. Pumps are shut down in an emergency. To prevent possible spillage when disconnecting the flexible hose leading to the transfer pumps, a valve (spill prevention control device) is placed between the discharge outlet of the tanker and the end of the transfer hose. Drip buckets are also available at the pads. Prior to departure all tankers are inspected for leaks and open valves or outlets. All transfer hoses are stored within a contained area.

A fork lift equipped with a special drum-handling device capable of holding two drums is used to load, unload, or stack and move drums within the container storage area. The containers are stored such that content identification labels are visible.



#### F4.2 Run off Prevention

40 CFR 270.14(b)(8)(ii)

WAC 173-303-806(4)(a)(viii)(B)

All loading, unloading, storage and treatment of dangerous waste is conducted within an adequate secondary containment system. The secondary containment systems are designed to contain any released material and prevent run-on in flooding conditions. The tank system and container storage containment walls and berms are of sufficient height to prevent overflow from the failure of any tank, including the precipitation of a 25-year storm or the run-on of flood waters of a 100-year flood event. Section D, Process Descriptions, addresses in detail the facility containment systems. Storm water collected in the secondary system must meet sewer discharge limits prior to pumping to the sewer.

#### F4.3 Water Supplies

40 CFR 270.14(b)(8)(iii)

WAC 173-303-806(4)(a)(viii)(C)

The contamination of water supplies is prevented through the use of secondary containment structures and proper waste handling practices for the storage, treatment, transfer loading and unloading operations of waste handled at the facility.

All tanks are above-ground units and the ancillary equipment (piping/transfer system) is also above ground. The tank system and container storage area is bermed to prevent run-off or flooding.



The secondary containment structures and surrounding area are inspected daily for cracks, gaps, integrity and evidence of leaks or spills. The protective coatings on the pad (where applicable) are also inspected regularly and repaired as necessary. Cracks and gaps are sealed using injected epoxy where appropriate.

Chemical Processors, Inc. has in place procedures to mitigate, control and clean-up releases to the environment and to prevent contamination of water supplies (see Section G, Contingency Plan and Section B7.0, Spills or Discharges to the Environment).

#### F4.4 Equipment and Power Failure

40 CFR 270.14(b)(8)(iv)

WAC 173-303-806(4)(a)(viii)(D)

In the event of a power failure, plant personnel are instructed to shut down all operations, including truck loading/unloading, tank and container transfer operations and all treatment processes, until normal power is restored. Valves are closed and transfer pumps shut down to eliminate possible spills. Should a power failure occur during non-operational hours, the Port of Seattle security will contact Chemical Processors, Inc. personnel. A power failure during non-operational hours would not impact the facility as all operations will have been shut down and secured.

The internal/external communications telephone system is equipped with an automatic on-line battery back up enabling full system operation for up to 48 hours without recharging or replacing the batteries. Emergency indoor lighting is provided by battery powered flood lamps which switch on automatically when AC power is lost. External emergency



lighting is provided by hand-held battery lanterns placed throughout the facility.

In the event of a power failure, liquids can be removed from sumps and containment areas utilizing the facility's self-powered portable transfer pumps. Power to portable equipment such as hand tools can be provided by a portable fuel powered generator. The generator could provide power to temporary emergency lighting if needed. Rental equipment is also available from several rental companies in the immediate vicinity of the facility.

#### F4.5 Personnel Protection Equipment

40 CFR 270.14(b)(8)(v)

WAC 173-303-806(4)(a)(viii)(E)

Personnel protection is provided to prevent undue exposure of facility personnel to dangerous waste. This is accomplished through plant layout and design, waste management equipment and practice, employee training and use of proper protective clothing and equipment.

The waste management systems are designed to minimize exposure of personnel in handling wastes. Liquid waste is stored/treated in closed-roof tanks and the transfer of wastes within the tank system is completed using a fixed-in-place piping system. Container lids are kept closed except when transferring waste.

All personnel are provided with and required to complete training in the management and proper safe handling of dangerous waste. No employee is permitted to work unsupervised until they have completed training. The training program consists of three levels, general



orientation, job-specific training and continuing training. General orientation training introduces a new employee to the management and operations of the company. Job-specific training relates to the specific duties of each job function. Continuing training is designed to maintain proficiency, learn new techniques and procedures, and reinforce safety and quality consciousness.

Training sessions include the use, selection and proper fit of personal protective equipment such as respirators. Employees receive instruction in first aid, CPR and personal hygiene, and the location and proper use of emergency equipment including fire extinguishers, foamite system and eye wash/shower stations. Training sessions cover hazardous material identification, waste characteristics and compatibility, and hazard recognition and guidance for the safe handling of hazardous wastes. Material Safety Data Sheets (MSDS) are also in use and available. Each employee is instructed in emergency response procedures through Contingency Plan training. A complete listing of training programs is described in Section H, Personnel Training.

Each employee is provided with safety equipment for their personal use. This equipment includes hard hats with face shields, safety glasses/goggles, hepa/organic cartridge respirators, ear protection (foam plugs), cotton coveralls, full neoprene rain suits, gloves (latex, cotton) and steel-toed rubber boots. Emergency equipment available at the facility include first aid kits, eye wash and shower stations and additional supplies of protective clothing and respirators (see Table F3-1, Emergency Equipment, Pier 91 Facility).

While engaged in loading, unloading, transfer or cleaning operations personnel are directed to wear steel-toed rubber boots, chemical-resistant gloves, eye/face protection,



respirators as necessary, and neoprene rainsuits where a splash hazard exists. All personnel working or entering the active portion of the facility are required to wear hard hats and eye protection.

Security measures (see Section F1.0) prohibit entry into the site by unauthorized personnel. Administrative activity areas not directly involved with the transfer, storage or treatment of dangerous waste are not located within the active portion of the facility. Authorized visitors must sign in and be escorted or under observation of plant personnel while in the active facility.



## F5.0 PREVENTION OF REACTION OF IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTES

Revised, July 1991, November 1991

The Pier 91 Facility accepts for storage or treatment in tanks, wastes which are ignitable (flash point 100-140°F), but does not accept reactive wastes or flammable wastes (flash point <100°F). Flammable wastes are not unloaded: in these cases, the generator is notified, and the waste is either returned to the generator or sent to an off-site RCRA-approved facility. Precautions to prevent the ignition or reaction of ignitable and incompatible wastes through proper handling, mixing and treatment procedures and methods, and the use of compatible equipment and systems is described in the following sections.

### F5.1 Precautions to Prevent Ignition or Reaction of Ignitable Wastes

Revised, January 1990

40 CFR 264.17(a), 270.14(b)(9)  
WAC 173-303-395(1)(a), 806(4)(a)(ix)

No open flames, cutting or welding is allowed within 50 feet of any waste treatment, storage, handling, loading and unloading areas where ignitable waste is present unless a second employee or contractor is providing fire watch by standing ready with a compatible fire extinguisher. Smoking is prohibited anywhere within the active facility. Wherever a hazard exists from ignitable wastes, NO SMOKING signs and signs indicating no open flames, cutting or welding are conspicuously posted.

When loading or unloading ignitable wastes, precautions are taken to prevent ignition of the waste. The tanker,



container, transfer hoses, loading boom, pump and storage tank are all grounded to neutralize possible static charges. The engine of the tankers is stopped unless it is used to power a pump needed in the transfer operation. Storage tanks are not filled from the top, but, at or near content level to minimize free-falling of liquid which could create a static charge. The electric motors powering the waste transfer and treatment circulation pumps are rated explosion-proof. All external electrical outlets are weatherproof and grounded, and explosion proof where required.

The fixed-in-place piping throughout the tank system is constructed of electrically non-conductive PVC and of carbon steel. The carbon steel piping is grounded per NFPA No. 77 specifications. Facility water lines are PVC as well. Any galvanized or brass piping is threaded eliminating the need for soldering or welding.

The tanks are constructed of either carbon steel or cross-link polyethylene. Storage/treatment tanks containing ignitable material are equipped with emergency relief venting. Buffer zone requirements for these tanks comply with applicable regulations (see Section B6.0, Buffer Monitoring Zones). Should cutting or welding be needed on carbon steel tanks, the tanks will be emptied, decontaminated and properly vented prior to beginning work (see Section F2.2.3, Tank Condition Assessment).

Section D discusses in detail the process information and design of waste handling systems at the facility.



## F5.2 General Precautions for Handling Ignitable Waste and Mixing of Incompatible Waste

40 CFR 264.17(b), 270.14(b)(9)

WAC 173-303-395(1)(b), 806(4)(a)(ix)

Prior to acceptance for storage or treatment, all wastes are subjected to detailed chemical and/or physical analysis to determine if the waste can be safely handled at the facility based on equipment and operational constraints and permit limitations. The procedures for pre-acceptance are described in detail in the Waste Analysis Plan, Section C2.7.

Before accepting and unloading a waste shipment at the facility, representative samples of the waste are analyzed to verify that the load matches its pre-approved profile and to determine compatibility with other waste streams for purposes of consolidation and blending. One method used at the facility to determine compatibility is the ASTM "Proposed Guide for Estimating the Incompatibility of Selected Hazardous Wastes Based on Binary Chemical Reactions". Another method is, prior to consolidation or blending, representative samples of the waste streams are carefully mixed in small portions in a prescribed laboratory procedure. Noted reactions include changes in temperature, pH and color, gas evolution and precipitation (see Section C2.4, Waste Analysis Plan).

During treatment, waste streams are sampled and analyzed to verify proper safe treatment procedure, process tolerance limits and to ensure the equipment is being operated within design specifications. Treatment processes and tolerance limits are described in Section B1.5, Detailed Process/Activity Descriptions, and Section C2.4, Waste Analysis Plan, describes the analytical methods in use.



Storage/treatment tanks containing ignitable material are equipped with emergency relief vents. The piping system leading into and throughout the tank system is a fixed-in-place system with individual lines labeled as fill or suction where applicable (see Section D, Process Information).

The HMIS placard system is in place to identify the health hazards, flammability, reactivity and personal protection equipment needed or associated with handling the waste streams stored and processed at the facility. This is a visual system using colors, numbers, letters and symbols.

All employees are trained in the proper handling, operational methods and emergency procedures of management of ignitable, reactive and incompatible wastes (see Section H, Personnel Training).











APPENDIX F-1

EXAMPLE SAFETY AND EMERGENCY  
EQUIPMENT INSPECTION FORMS

Revised, December 1990



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQUENCY Daily      AREA Safety & Emergency Equipment

PAGE 1 OF 3

INSPECTOR \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

INSPECTION REVIEW: PLANT MANAGER INITIAL \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

RESPONSE LEVEL  
URGENT      ROUTINE

ISSUED	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
MAINTENANCE	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
REQUEST	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
FORMS	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R

S=SATISFACTORY      U=UNSATISFACTORY

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
Spill Response Kits	Check that units are complete; absorbent material and shovel			
	- 1 ea; DW area loading/unloading area			
	- 1 ea; warehouse, building 19			
First Aid Kits	Check accessibility to units			
	- 1 ea; DW area, loading/unloading area			
	- 1 ea; operations office			
	- 1 ea; laboratory, building 19			



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

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FREQUENCY Daily

AREA Safety & Emergency Equipment

DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
Emergency Showers and Eye Wash Stations	<p>Check pressure and flow volume, even flow/stream on eye wash, units turn on/off easily, adequate supply of eye wash fluid (where applicable), identification sign attached and legible</p> <ul style="list-style-type: none"> <li>- DW area loading/unloading area</li> <li>- center existing tank system</li> <li>- operations office</li> <li>- laboratory, building 19</li> <li>- locker room, building 19</li> </ul>			
Fire Extinguishers	Check that units are in place, accessible and changed			
Number				
1	10 lb ABC - laboratory, bldg. 19			
2	10 lb ABC - locker room, bldg. 19			
3	20 lb ABC - north entrance ramp bldg. 19			
4	20 lb ABC - north end warehouse, bldg. 19			
5	20 lb ABC - center west wall warehouse bldg. 19			



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

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FREQUENCY Daily

AREA Safety & Emergency Equipment

DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
6	10 lb ABC - outside shop, bldg. 19			
7	1.7 lb, Halon, BC - inside shop, bldg. 19			
8	20 lb ABC - east loading dock bldg. 19			
9	20 lb ABC - southwest wall warehouse, bldg. 19			
10	20 lb ABC - north wall inside boiler room, bldg. 19			
11	6 lb BC - operations office			
12	2 1/2 lb ABC - welder cart			
13	20 lb ABC - electrical control, bldg. 25			
14	10 lb ABC - foamite/pump bldg.			
planned	ABC type - DW area, loading/unloading area			
planned	ABC type - DW area, north end			
planned	ABC type - DW area, south end			



APPENDIX F-2

EXAMPLE SECURITY EQUIPMENT  
INSPECTION FORMS



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQUENCY Daily      AREA Security Equipment

PAGE 1 OF 2

INSPECTOR \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

INSPECTION REVIEW: PLANT MANAGER INITIAL \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

RESPONSE LEVEL  
URGENT      ROUTINE

ISSUED	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
MAINTENANCE	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
REQUEST	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
FORMS	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R

S=SATISFACTORY      U=UNSATISFACTORY

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
Fences	Check for holes, breaches and integrity			
Gates and Locks	Check for operability, holes, breaches, integrity, locks in place, operable and not tampered with. Unobstructed access to gates  - truck entrance/exit gates  - walk through gates, along west perimeter			
Outdoor Lighting	Verify lights turn on/off at dark and daylight, full brightness  - intra-facility lights  - perimeter lights			



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

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FREQUENCY Daily      AREA Security Equipment

DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
Facility Access	Check general access throughout the facility for unobstructed movement of emergency vehicles, personnel and equipment			
Warning/ Regulatory Signs	Verify signs are in place and legible throughout facility and on perimeter fence  - Danger - Unauthorized Personnel Keep Out  - NO SMOKING  - No open flames, cutting or welding  - Traffic control; Stop, Caution, No Parking, Fire Lanes			



APPENDIX F-3

EXAMPLE OPERATIONAL EQUIPMENT  
INSPECTION FORMS



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQUENCY Daily      AREA Operational Equipment

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INSPECTOR \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

INSPECTION REVIEW: PLANT MANAGER INITIAL \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

RESPONSE LEVEL  
URGENT      ROUTINE

ISSUED	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
MAINTENANCE	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
REQUEST	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
FORMS	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R

S=SATISFACTORY      U=UNSATISFACTORY

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
Facility Air Compressor	Check oil, temperature, pressure drain condensate			
Electrical Control Panels	Check access to breaker panel and general condition of unit/area  1 ea; DW area  1 ea; electrical control bldg. 25  1 ea; boiler room, bldg. 19			
Sanitary Sewer Discharge	Check that meter is operational, no leaks, discharge records up to date (records kept in plant office)			



APPENDIX F-4

EXAMPLE CONTAINER STORAGE AREA  
INSPECTION FORMS



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQUENCY Daily      AREA Container Storage Area

PAGE 1 OF 1

INSPECTOR \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

INSPECTION REVIEW: PLANT MANAGER INITIAL \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

RESPONSE LEVEL  
URGENT      ROUTINE

ISSUED -EQUIPMENT/AREA \_\_\_\_\_ NO. \_\_\_\_ DATE \_\_\_\_/\_\_\_\_/\_\_\_\_ U R  
MAINTENANCE  
REQUEST -EQUIPMENT/AREA \_\_\_\_\_ NO. \_\_\_\_ DATE \_\_\_\_/\_\_\_\_/\_\_\_\_ U R  
FORMS  
-EQUIPMENT/AREA \_\_\_\_\_ NO. \_\_\_\_ DATE \_\_\_\_/\_\_\_\_/\_\_\_\_ U R

S=SATISFACTORY      U=UNSATISFACTORY

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)			COMMENTS
			S	U	
Container Storage Pad	Check sump and containment structure for evidence of leakage, spills or accumulated liquids				



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FREQUENCY Weekly      AREA Container Storage Area

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INSPECTOR \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

INSPECTION REVIEW: PLANT MANAGER INITIAL \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

RESPONSE LEVEL  
URGENT      ROUTINE

ISSUED	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
MAINTENANCE	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
REQUEST	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
FORMS	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R

S=SATISFACTORY      U=UNSATISFACTORY

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
Containers	Check for leaks, swelling, deterioration, corrosion, and open lids			
	Check that labels are visible, legible and in place			
	Check for proper stacking and incompatible storage			
	Check marked storage date			
Container Storage Pad	Check pad, berms, curbs, sumps and coatings for evidence of cracks, gaps, integrity, deterioration and corrosion or erosion			



APPENDIX F-5

EXAMPLE TANK SYSTEM  
INSPECTION FORMS

Revised, November 1991



APPENDIX F-5

EXAMPLE TANK SYSTEM  
INSPECTION FORMS

Revised, December 1990



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQUENCY Daily      AREA Tank System

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INSPECTOR \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

INSPECTION REVIEW: PLANT MANAGER INITIAL \_\_\_\_\_ DATE & TIME \_\_\_\_/\_\_\_\_/\_\_\_\_ AM  
PM

RESPONSE LEVEL  
URGENT      ROUTINE

ISSUED	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
MAINTENANCE	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
REQUEST	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R
FORMS	-EQUIPMENT/AREA _____	NO. ____	DATE ____/____/____	U	R

S=SATISFACTORY      U=UNSATISFACTORY

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
Tank System Loading/Unloading	Check pad, berms, curbs, sumps and coatings for evidence of leakage, spills or accumulated liquids, cracks, gaps integrity, deterioration and corrosion or erosion			
	Check availability of spill prevention control device  - DW area loading/unloading pad			
Tank System Secondary Containment System	Check pad, berms, curbs, sumps and coatings for evidence of leakage, spills or accumulated liquids, cracks, gaps, integrity, deterioration and corrosion or erosion			
	<u>storage/treatment areas</u>			
	- tank system			
	- container storage area			
	- treatment chemical storage area			



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

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FREQUENCY Daily

AREA Tank System

DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

EQUIPMENT/AREA	INSPECTION OBSERVATION	CONDITION (CHECK ONE)		COMMENTS
		S	U	
	<u>sumps</u>  - process area sump  - temporary container storage area sump  - treatment chemical tank storage area sump			
Tank System Piping and Controls (Ancillary Equipment)	Check piping, valves, vapor condensers, fittings and fixtures, pipe supports and coatings for evidence of leakage, spills or accumulated liquids, cracks, gaps, integrity, deterioration and corrosion or erosion			
General Area	Walk perimeter of tank system, container storage, and loading/unloading pad containment areas noting evidence of leakage and spills and debris or vegetation accumulation  Check aisle space, access to fire extinguishers and exits/entrances			
Centrifuge	Verify voltage draw alarm operative, emergency water flush and actuator valve works, smooth bowl operation, conveyer and centrate pump operational, grease bearings			



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQ Daily

AREA Tank System

DATE \_\_\_/\_\_\_/\_\_\_ PAGE 1 OF 3

INSPECTION OBSERVATION

TCM TANK CONSTRUCTION MATERIALS

1. Check tank base, walls and seams for rust and corrosion or erosion, leaks and evidence of overflow.
2. Check tank valves fittings and fixtures for rust and corrosion or erosion and leaks.

TOCE TANK OVERFILLING CONTROL EQUIP

1. Move level indicator on gauge boards up and down by hand to ensure internal float raises and lowers easily (where applicable).
2. Test alarm panel and units on individual tanks for proper function to include activation of warning/indicator lights alarms when high levels are attained (where applicable).

TMD TANK MONITORING DATA

Inspect tank change logs and treatment/analysis records noting pH, specific gravity and temperature to ensure proper safe operation and treatment application of tanks, piping and ancillary equipment.

TANK NO.	TCM		TOCE		TMD	S=SATISFACTORY U=UNSATISFACTORY COMMENT IF UNSATISFACTORY
	1	2	1	2		
2101						
2102						
2103						
2104						
2201						
2202						
2203						



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQ Daily      AREA Tank System      DATE \_\_\_\_/\_\_\_\_/\_\_\_\_      PAGE 1 OF 2

INSPECTION OBSERVATION

TCM    TANK CONSTRUCTION MATERIALS

1. Check tank base, walls and seams for rust and corrosion or erosion, leaks and evidence of overflow.
2. Check tank valve fittings and fixtures for rust and corrosion or erosion and erosion and leaks.

TOCE    TANK OVERFILLING CONTROL EQUIP.

1. Move level indicator on gauge boards up and down by hand to ensure internal float raises and lowers easily (where applicable).
2. Test alarm panel and units on individual tanks for proper function to include activation of warning/indicator lights or alarms when high levels are attained (where applicable).

TMD    TANK MONITORING DATA

Inspect tank change logs and treatment/analysis records noting pH, specific gravity and temperature to ensure proper safe operation and treatment application of tanks, piping and ancillary equipment.

TANK NO.	TCM		TOCE		TMD	S=SATISFACTORY U=UNSATISFACTORY COMMENT IF UNSATISFACTORY
	1	2	1	2		
2307						
2308						
2309						
2310						
2313						
2701						
2702						



CHEMICAL PROCESSORS, INC.  
PIER 91 FACILITY

FREQ Daily

AREA Tank System

DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

PAGE 2 OF 2

TANK NO.	TCM		TOCE		TMD	S=SATISFACTORY U=UNSATISFACTORY COMMENT IF UNSATISFACTORY
	1	2	1	2		
2703						
2704						
2705						
2706						
2707						
2708						
2709						
2710						



APPENDIX F-6

EXAMPLE MAINTENANCE  
REQUEST FORM



CHEMICAL PROCESSORS, INC.  
MAINTENANCE REQUEST FORM

No. \_\_\_\_\_

IT IS THE RESPONSIBILITY OF PLANT PERSONNEL TO PERFORM PREVENTATIVE MAINTENANCE ON ANY EQUIPMENT THEY OPERATE. THIS MAINTENANCE INCLUDES INSPECTION, CLEANING, LUBRICATING, USE AND CLEANING OF FILTERS ON ABOVE MINOR ADJUSTMENTS AND MINOR PLUMBING REPAIRS. THIS FORM IS TO BE FILLED OUT ONLY AFTER ALL REASONABLE CORRECTIVE ACTIONS HAVE BEEN TAKEN.

NAME OF EQUIPMENT/HAZARD/AREA \_\_\_\_\_

LOCATION OF EQUIPMENT/HAZARD/AREA \_\_\_\_\_

DESCRIBE NATURE OF PROBLEM \_\_\_\_\_

\_\_\_\_\_

CORRECTIVE ACTION ALREADY TAKEN \_\_\_\_\_

\_\_\_\_\_

REQUESTED BY \_\_\_\_\_ DATE \_\_\_\_\_

\_\_\_\_\_

FOR PLANT MANAGERS USE

RETURN TO OPERATOR YES \_\_\_\_\_ NO \_\_\_\_\_ DATE RECEIVED \_\_\_\_\_

PRIORITY LEVEL 1 (URGENT) \_\_\_\_\_ DATE SENT TO MAINTENANCE \_\_\_\_\_

PRIORITY LEVEL 2 (ROUTINE) \_\_\_\_\_ PROJECT NO. \_\_\_\_\_

PRIORITY LEVEL 3 \_\_\_\_\_ PRIORITY LEVEL 4 \_\_\_\_\_

\_\_\_\_\_

MAINTENANCE DEPARTMENT

SCHED. START DATE \_\_\_\_\_ ACTUAL START DATE \_\_\_\_\_ DATE RCVD. \_\_\_\_\_

EST. COMPLETION TIME \_\_\_\_\_ ACT. COMPLETION TIME \_\_\_\_\_ RCVD. BY \_\_\_\_\_

MATERIAL LIST

MATERIAL COST

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

TOT. MAN HRS. \_\_\_\_\_ TOT. MATERIAL COSTS \_\_\_\_\_ TOT. COST \_\_\_\_\_



APPENDIX F-7

EXAMPLE PERIODIC TANK CONDITION  
ASSESSMENT FORM

Revision, December 1990



APPENDIX F-7

Chemical Processors, Inc.  
Example Periodic Tank Condition Assessment Form

ANNUAL CORROSION COUPON INSPECTION

TANK NO. \_\_\_\_\_ FACILITY \_\_\_\_\_

USAGE \_\_\_\_\_ RATING    A    B    C

DATE OF THIS INSPECTION    \_\_\_\_/\_\_\_\_/\_\_\_\_

DATE OF PREVIOUS INSPECTION    \_\_\_\_/\_\_\_\_/\_\_\_\_

CHEMPRO PROJECT ENGINEER \_\_\_\_\_

TYPE OF COATING/LINER  
APPLIED TO THIS TANK \_\_\_\_\_

DATE COATING/LINER APPLIED TO THIS TANK    \_\_\_\_/\_\_\_\_/\_\_\_\_

THE CONDITION OF THE COATING/LINER THE ON COUPON IS TO BE  
INSPECTED FOR:

1. ADHESION
2. BLISTERING
3. CORROSION OR EROSION
4. INTEGRITY

S = SATISFACTORY

U = UNSATISFACTORY

A. LOWER THIRD (liquid space) COUPON

- |    |   |       |   |       |                |
|----|---|-------|---|-------|----------------|
| 1. | S | _____ | U | _____ | COMMENT: _____ |
| 2. | S | _____ | U | _____ | COMMENT: _____ |
| 3. | S | _____ | U | _____ | COMMENT: _____ |
| 4. | S | _____ | U | _____ | COMMENT: _____ |



Annual Corrosion Coupon Inspection  
Page 2

B. MIDDLE THIRD (liquid/gas interface) COUPON

1.	S	_____	U	_____	COMMENT: _____
2.	S	_____	U	_____	COMMENT: _____
3.	S	_____	U	_____	COMMENT: _____
4.	S	_____	U	_____	COMMENT: _____

C. UPPER THIRD (headspace) COUPON

1.	S	_____	U	_____	COMMENT: _____
2.	S	_____	U	_____	COMMENT: _____
3.	S	_____	U	_____	COMMENT: _____
4.	S	_____	U	_____	COMMENT: _____

SUMMARY OF THE CONDITION OF THE COATING/LINER ON THE COUPON

THE CONDITION OF THE COATING/LINER APPLIED TO THIS TANK HAS  
PASSED THIS ANNUAL ASSESSMENT

YES \_\_\_\_\_

NO \_\_\_\_\_ If NO, an internal visual inspection of the tank  
will commence within 90 days.



APPENDIX F-8

AIR EMISSION MONITORING PROGRAM  
FOR PROCESS VENTS AND EQUIPMENT LEAKS

Revised November 1991



Air Emission Monitoring Program  
For Process Vents and Equipment Leaks

A. Purpose

The Air Emission Monitoring Program is designed to meet the requirements of 40 CFR Part 264 Subparts AA and BB. The program is presented in two parts: Process Vent Emissions and Leak Detection Program. The program describes the monitoring, testing, repair and recordkeeping requirements associated with "Air Emission Monitoring for Process Vents and Equipment Leaks".

If the total emission of organics from the process vents at the facility is greater than 3 pounds per hour (or 3.1 tons per year) from stripping or distilling operations processing wastes having an organic concentration equal to or greater than 10 parts per million by weight (ppmw), measures will be taken to reduce the organic emissions to below 3 lbs per hour and 3 tons per year or to reduce the organic emissions by 95 percent.

The Equipment Leaks program will be implemented for those equipment items that contain or contact hazardous waste streams with an organic concentration greater than or equal to 10 percent by weight.

Requirements for complying with the "Air Emission Monitoring From Process Vents and Equipment Leaks" regulations are outlined below for each of the monitoring programs.

B. Organic Air Emissions Monitoring Program For Process Vents

The Pier 91 Facility has no units subject to the requirements of 40 CFR 264 Subpart AA organic air emissions standards.

C. Organic Air Emissions Monitoring Program For Equipment Leaks

The leak detection program will be used at the facility to identify leaks and to repair equipment within a specified time as required by 40 CFR 264 Subpart BB. The leak detection program consists of four program elements, which include Monitoring Requirements, Repairs, Test Methods and Procedures, and Recordkeeping Requirements. The program will be instituted for all equipment handling waste streams having an organic concentration of greater than 10 percent. The organic concentration of the waste will be determined by methods specified in 40 CFR 264.1063(d): ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85; Methods 9060 or 8240



of SW-846; or by knowledge of the nature of the wastes or the process generating the waste.

#### C.I. Monitoring Requirements For Equipment Leaks

The monitoring standards in 40 CFR 264 Subpart BB will apply to all non-exempt valves, pumps, compressors, pressure relief devices, sampling connection systems, open ended valves/lines, and organic air emission control devices and systems which contain or contact hazardous waste with organic concentrations of ten (10) percent (by weight) or greater, and where those wastes are managed in hazardous waste recycling, treatment, storage, or disposal units.

Each affected unit will be marked in such a manner that it is readily distinguishable from other equipment. Depending on the type of equipment, the program must meet the standards listed below. The permittee's plan for complying with these standards will be kept in the facility's Air Monitoring Program Notebook. Compliance with these standards will follow the test methods, procedures, and requirements of 40 CFR 264.1063.

<u>Equipment</u>	<u>40 CFR Requirement</u>
Pumps in light liquid service	264.1052
Pumps in heavy liquid service	264.1058
Pressure relief devices in gas/vapor service	264.1054
Pressure relief devices in light liquid service	264.1058
Pressure relief devices in heavy liquid service	264.1058
Sampling connection systems	264.1055
Open-ended valves/lines	264.1056
Valves in gas/vapor service	264.1057 (or 264.1061 or 264.1062)
Valves in light liquid service	264.1057 (or 264.1061 or 264.1062)
Valves in heavy liquid service	264.1058



Flanges and other connectors	264.1058
Closed vent systems and control devices	264.1060

### **C.II Equipment Leak Repair Requirements**

Repairs to equipment will be completed within 15 days after the detection of a leak. A first attempt at repairing the leak will be made within 5 days of detection of a leak. Delays for repair of equipment are allowed if the following criteria are met:

1. Delay for repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In this case, the repair shall be completed before the end of the next hazardous waste management unit shutdown.
2. Delay of repair of equipment for which leaks have been detected will be allowed if the equipment is isolated from the hazardous waste management unit and does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.
3. Delays for repairs to valves will be allowed if the emissions of purged material resulting from immediate repair are greater than the emission likely to result from delay of repair and if the material purged when the repair is effected is collected and destroyed or recovered in a control device complying with 40 CFR 264.1060.
4. Repairs to pumps may be delayed if the repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and if the repair is completed as soon as practicable, but not more than six months after the leak is detected.

### **C.III Equipment Leak Monitoring Methods and Procedures**

Monitoring will be done in a manner consistent with EPA Method 21 in 40 CFR Part 60. The instrument will meet the performance criteria of EPA Method 21. The monitoring equipment will be a Foxboro OVA 108 or equivalent air monitor.

The instrument will be calibrated before use on each day of use. Calibration gasses will be (1) zero air (less than 10



ppm of hydrocarbon in air) and (2) a mixture of methane in air, at approximately 10,000 ppm but less than 10,000 ppm.

For determination of leaks, the instrument probe will be traversed around all potential leak interfaces as described in EPA Method 21. For determination of "No Detectable Emissions", the monitoring will be performed as described in EPA Method 21, and will also include testing for background levels.



#### C.IV. Recordkeeping Requirements For Equipment Leak Monitoring Program

An Air Emission Monitoring Notebook will be included in the facility's operating record. The notebook will contain all of the information listed below (when applicable).

1. The notebook shall include the following information for each piece of affected equipment:

- a. Equipment identification number and hazardous waste management unit identification.
- b. Approximate location of the equipment in the facility.
- c. Identification of the equipment as to its type (e.g. pump, valve).
- d. The concentration in weight percent of total organics in the hazardous waste stream at the equipment.
- e. Physical state of the hazardous waste at the equipment.
- f. Method of compliance with the standards (e.g. monthly leak detection and repair, or equipped with dual seals)

2. The Air Monitoring Notebook will also contain a log of the following information for all affected equipment:

- a. The identification number of the equipment.
- b. The identification numbers of all equipment which has been designated for "No Detectable Emissions" and the results of all compliance testing (undertaken to comply with 40 CFR 264.1064(g)(2) through (4).
- c. The identification numbers of all equipment in vacuum service.
- d. The identification numbers of all valves which have been designated for "unsafe to monitor" or "difficult to monitor" status, and the rationale for the designation.
- e. Results of compliance monitoring for leak detection and repair and evidence of effected repair (when a leak has been detected) for each affected valve, pump,



pressure relief device in liquid service, and flange or other connection.

f. The criteria, an explanation of that criteria and any changes in that criteria, for judging failure of any pump equipped with a dual seal and barrier fluid system.

g. Documents to show compliance with all relevant provisions of 40 CFR 264.1064(k) for determining exemptions.

3. A monitoring schedule, and a record of the percent of valves found leaking during each monitoring period, for each affected valve subject to the alternative standard requirements of 40 CFR 264.1062 (if applicable).

#### C.VI. Reporting Requirements For Equipment Leaks Monitoring Program

Starting from the effective date of the permit, a semiannual report will be required, if during the six-month reporting period a leak from any equipment affected by this program is not repaired within the time allotted by the applicable standards. If a report is required, it must be submitted to the Regional Administrator at the end of the reporting period and must provide the information specified in 40 CFR 264.1065. The starting date of the six month reporting period may be changed by agreement with the agency to allow for standardization among the permittee's several facilities.











SECTION G  
CONTINGENCY PLAN



## SECTION G CONTINGENCY PLAN

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## PREFACE

Revised, July 1990

40 CFR 264.51, 264.53(a), 270.14(b)(7)

WAC 173-303-350(1), 350(4)(a), 806(4)(a)(vii)

The objectives of the Chemical Processors' Pier 91 Facility Contingency Plan are to minimize and prevent hazards to public health or the environment from fires, explosions or any unplanned, sudden or non-sudden release of dangerous wastes or dangerous waste constituents to air, soil or surface water. This plan also applies to the management of hazardous materials in which a release may require preventative and responsive actions on the part of Chemical Processors, Inc.

A current copy of this plan is kept at the facility at all times and is provided to the appropriate public agencies and providers of emergency services. The Port of Seattle, providers of 24-hour guard controlled access to the Port and Pier 91, has also received a current copy of the Contingency Plan.



## G1.0 GENERAL FACILITY DESCRIPTION

### G1.1 Facility Identification, Location and Site Plan

#### Name

Chemical Processors, Inc.  
Pier 91 Facility  
2001 West Garfield Street  
Seattle, Washington 98119  
Phone (206) 284-2450  
EPA ID No. WAD000812917

#### Facility Operator

Chemical Processors, Inc.  
2203 Airport Way South, Suite 400  
Seattle, WA 98134  
(206) 223-0500

#### Location

The facility is located at 2001 West Garfield Street, Pier 91 in the Port of Seattle, King County, Washington. Land use is permitted and zoned as General Industrial Zone 1 (IG1) by the City of Seattle. The plant is approximately two miles northwest of downtown Seattle.

Vehicles traveling to and from Pier 91 enter the Port of Seattle via the entrance on the Garfield Street viaduct or the truck entrance on West Galer Street. Both Garfield and Galer Streets are accessed from the north by 15th Avenue West and from the south by Elliott Avenue West. Elliott and 15th Avenues are designated truck routes and provide access to State Highway 99 and Interstate 5.



Figure G1-1 shows the access routes to the Pier 91 Facility and Figure G1-2 shows the Pier 91 Facility site plan and operational areas.

## G1.2 Facility Operations

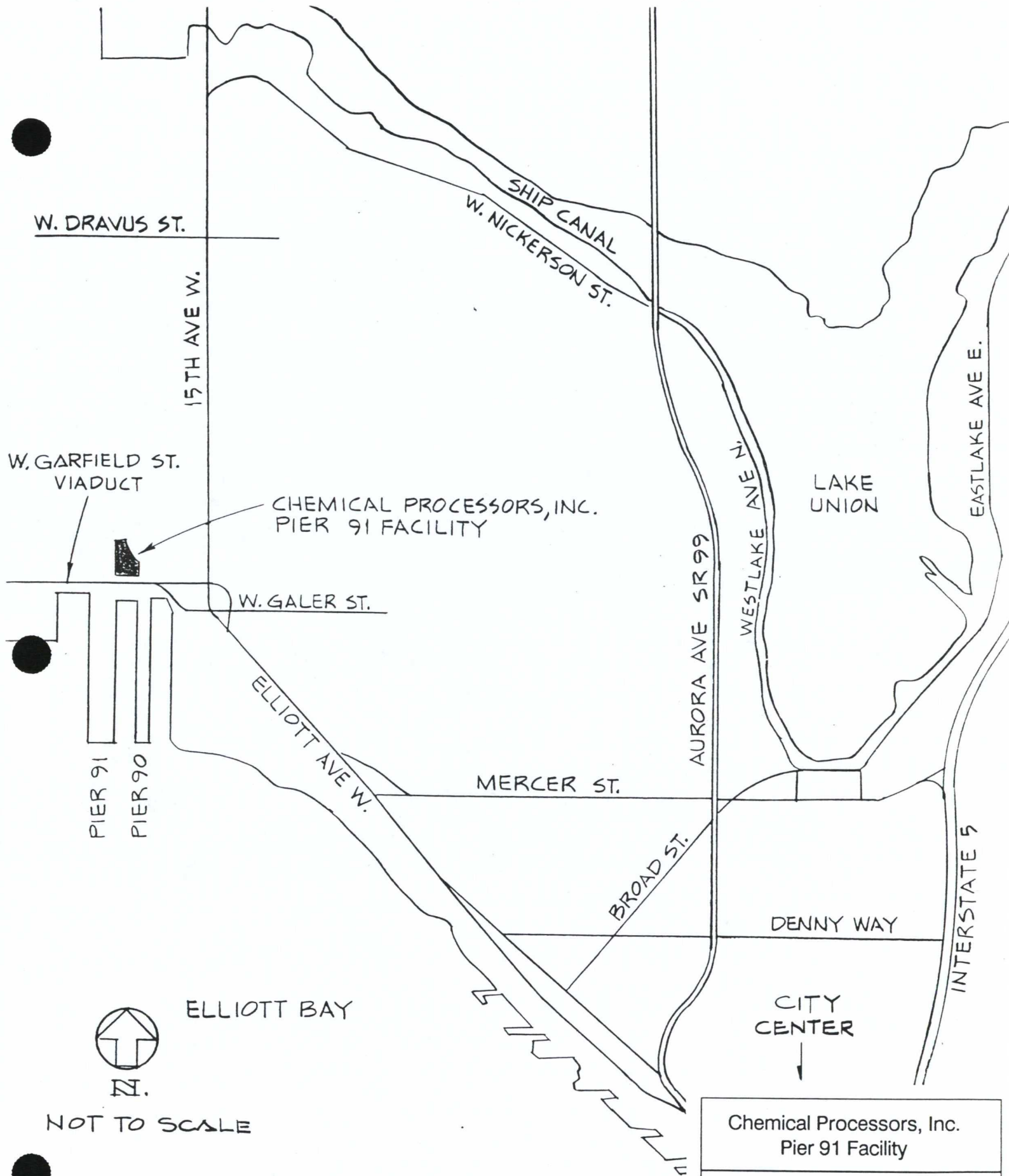
Revised, July 1990, December 1990

The existing dangerous waste operations are located on a 0.5 acre area consisting of a tank system with adequate secondary containment, a centrifuge, a contained truck loading/unloading pad and a temporary container storage area used for wastes generated on site. The proposed dangerous waste operations will be located on an area of approximately 0.2 acres. This area will consist of a tank system with adequate secondary containment. The centrifuge unit currently used will be relocated in the proposed dangerous waste area. Figure G1-2, Pier 91 Facility Site Plan, shows the existing and proposed operational areas of the facility.

Dangerous waste treatment at the facility includes chemical and physical treatment. These treatment processes are neutralization, precipitation, oxidation, reduction, demulsification, and heat treatment.

The facility is able to operate on a 3-shift 24 hour schedule. Each shift of 2 to 10 workers is led by a Foreman knowledgeable in emergency response and notification procedures. Employees receive training, instruction and review in facility operations, emergency procedures and contents of the Contingency Plan. See Section H, Training Plan, for further discussion of personnel qualifications and training procedures.





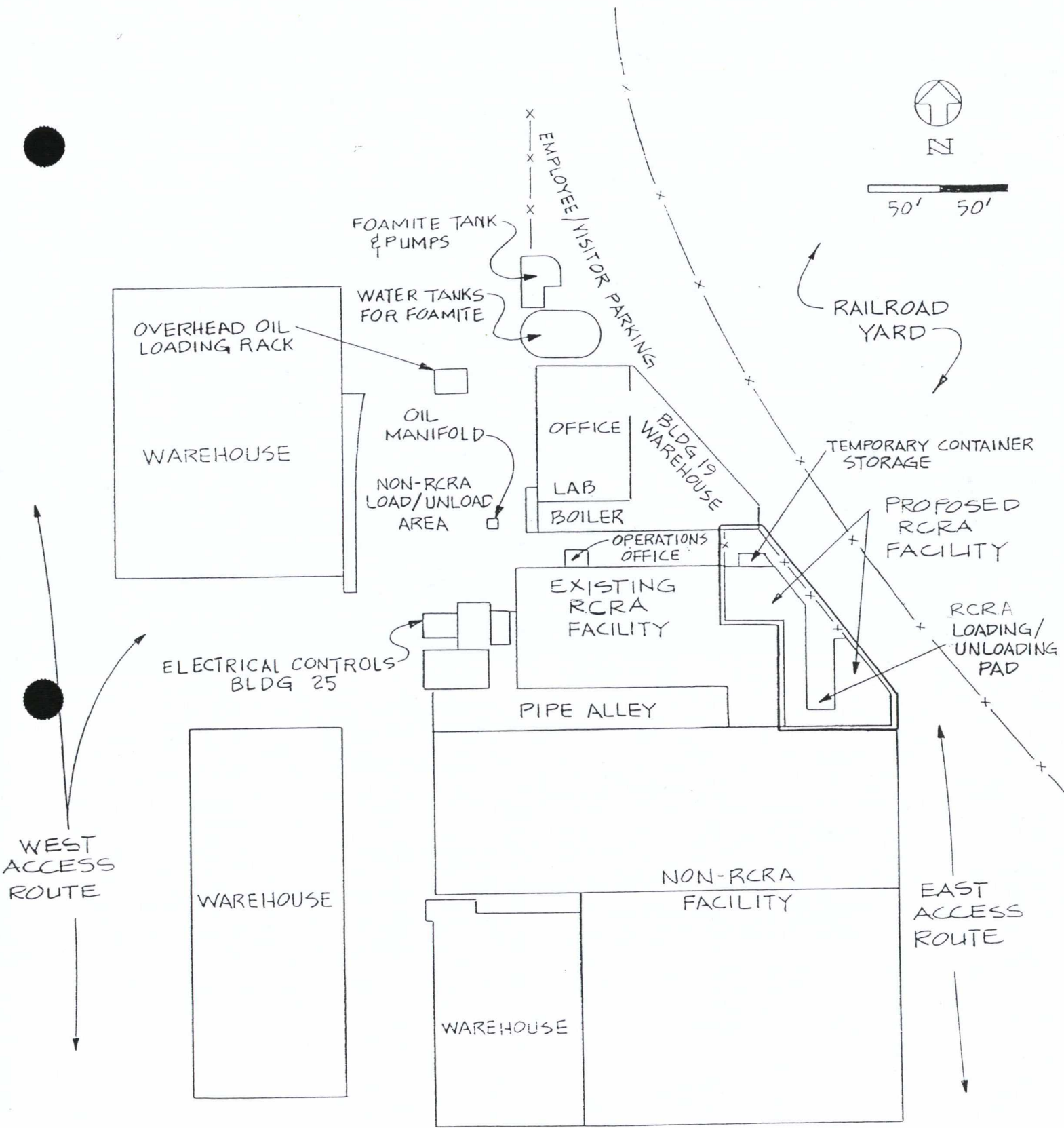
Chemical Processors, Inc. Pier 91 Facility
<b>Facility Access Routes</b>
Figure G1-1





N

50' 50'



W. GARFIELD ST. VIADUCT

Chemical Processors, Inc.  
Pier 91 Facility

**Pier 91 Facility  
Site Plan**

Figure G1-2



The Port of Seattle provides 24-hour controlled access to the Port and Pier 91. All entrances to the Port are manned by guards, and the guards periodically patrol the area of the facility. The dangerous waste portion of the facility is completely surrounded by a barrier (chain link fence or concrete wall). All gates are kept closed and locked during non-operational hours. The plant is illuminated by facility-wide outdoor lighting.

All operational, security, safety, emergency and waste process equipment is inspected on a regular schedule based on operational experience and engineering knowledge of the equipment and systems, including the rate of possible deterioration. Scheduled inspections are completed using pre-printed forms which list the item/feature checks for the equipment or system to ensure proper safe operation and readiness (see Section F2.0, Inspection Schedule).

### G1.3 Dangerous Wastes Handled at the Facility

Wastes processed at the Pier 91 Facility include oil and coolant emulsions, industrial wastewaters including alkalis, and industrial waste sludges. Common contaminants in these wastestreams include phenolics, metals and solvents.

This facility does not handle or accept dangerous wastes F020, F021, F022, F023, F026, F027 for storage or treatment in tanks or containers.



## G2.0 EMERGENCY COORDINATOR RESPONSIBILITIES

Revised, January 1990, December 1990

40 CFR 264.52(d), 264.55, 264.56

WAC 173-303-350(3)(d), 360(1)

The Emergency Coordinator (EC) is responsible for coordinating emergency response procedures in the event of any fires, explosions, unplanned releases, spills or other emergency situations occurring at the facility. The EC's duties include the following:

- assure personnel safety,
- assess the nature, severity and material(s) involved in the situation,
- initiate the Contingency Plan if appropriate and evacuation of the facility if necessary,
- notify neighboring facilities/personnel as necessary,
- direct containment and control operations,
- contact emergency agencies and authorities, and
- initiate clean-up and replenishment operations.

The EC is thoroughly familiar with all aspects of the Contingency Plan and all operations, activities, the locations and properties of wastes handled, the location of all records within the facility and the facility layout. The EC or his designee has the complete authority to commit needed resources of the company in the event of an emergency (see Appendix G-1, Letter of Authorization - Emergency Coordinators.)



The Primary or an Alternate Emergency Coordinator will be at the facility or on call at all times during both operational and non-operational hours. The Primary Emergency Coordinator is typically at the facility from 8 am to 5 pm weekdays. The on-duty EC can be reached by telephone or personal pager. Table G2-1 lists the names, addresses, office and home telephone and pager numbers of the Pier 91 Facility's Primary Emergency Coordinator and Alternates in the order in which they assume Emergency Coordinator responsibilities.

The Port of Seattle provides 24-hour controlled access to the Port and Pier 91. Guards periodically patrol the area of the facility. The Port of Seattle is provided with the list of ECs for the Pier 91 Facility (Table G2-1) and instructions for notification.

Emergencies reported to the corporate office (206) 223-0500 after hours are received by the answering service. The answering service is provided with the list of the ECs for the Pier 91 Facility (Table G2-1) and instructions for notification.

The Port of Seattle and the answering service have been instructed to first attempt to contact the Primary Emergency Coordinator then the Alternates in the order they are listed in Table G2-1, Emergency Coordinators, Pier 91 Facility.



TABLE G2-1. EMERGENCY COORDINATORS, PIER 91 FACILITY  
Revised, January 1990, December 1990, November 1991

Sheet 1 of 1

EMERGENCY COORDINATORS	WORK	TELEPHONE NUMBERS (a) HOME	PAGER	HOME ADDRESS
<u>Primary</u>				
1. <u>Nate Mathews</u> Plant Manager	284-2450	937-7419	994-7004	4608 SW Admiral Seattle, WA 98116
<u>Alternates</u>				
2. <u>Hector Gamboa</u> Foreman	284-2450	485-0142	994-7004	19819 64th St. NE Seattle, WA 98155
3. <u>Ron Atwood</u> Director of Operations	223-0500	226-8745	997-6216	13003 SE 188th Pl Renton, WA 98058
4. <u>Mike Keller</u> Vice President Operations	223-0500	391-4773	N/A	990 NW Firwod Blvd. Issaquah, WA 98027

(a) All telephone numbers are area code (206).



G3.0 IMPLEMENTATION OF THE CONTINGENCY PLAN  
Revised, May 1991

40 CFR 264.51

Where public health or the environment are threatened, the following emergencies would call for the implementation of the Contingency Plan:

- a. Fire/explosion anywhere on premises.
- b. On-site and off-site releases of dangerous wastes or dangerous waste constituents.
- c. The occurrence of natural disasters.

Listed below are more detailed examples of the emergency incidents described above.

a. Fire/Explosion

- A fire in which the use of water or water and chemical fire suppressant could result in contaminated runoff.
- A fire which causes the release of toxic fumes.
- A fire which spreads and could possibly ignite stored materials/chemicals in other locations on site.
- A fire which could cause heat-induced explosions of materials/chemicals on site. The potential for explosion poses hazards of flying fragments, ignition of other hazardous materials and their release.

b. Material Release

- A sudden or non-sudden release which poses a threat to public health or the environment outside the facility or



is a nonpermitted release of a reportable quantity of a hazardous substance. (Reportable quantity is any amount released outside of secondary containment, and ten gallons or more released within secondary containment.)

- A release on site which has been contained yet the potential exists for contamination of soil, surface or groundwater.
- A release which cannot be contained on site, resulting in off-site soil or surface water or potential groundwater contamination.
- An uncontrolled release originating from a damaged shipment which has arrived at the plant in such a condition.
- A release of gas to the air originating from an explosion or reaction of materials.

c. Natural Disaster

- A release or potential for release of hazardous materials caused by earthquake or severe flooding conditions which damage equipment, foundations, structures or tanks.
- A release or potential for release of hazardous materials caused by a severe storm involving high velocity winds or lightning which damage or overturn tanks.



## G4.0 EMERGENCY RESPONSE PROCEDURES

### G4.1 Incident Response, Assessment and Identification

40 CFR 264.56(a), (b), (c), (d)

WAC 173-303-360(2) (a), (b), (c), (d)

#### G4.1.1 Employee Response

Any employee, when faced with an actual or imminent emergency, will first attend to his safety. Then, if it is safe to do so, he will attend to other employees requiring immediate assistance. The employee will also notify all facility personnel of the need for assistance by means of alarm signals listed in Table G4-1. Locations of telephones/intercoms and alarm horns are shown in Figure G4-1.

In all emergency situations (regardless of size or extent) the employee involved in or discovering the situation will contact the Emergency Coordinator (EC) and provide information as to the location, nature and extent of the incident. The names, addresses and telephone numbers of the Primary and Alternate Emergency Coordinators are found in Table G2-1. The Emergency Response Notification Flow Chart (Figure G4-2) outlines the proper response/notification procedures.

Section G4.3 lists Chemical Processors' emergency response procedures for the containment and control of emergency situations including injured or endangered employees, fires and explosions, spills and releases and damaged shipments.



METHOD/DEVICE	ACTION/REACTION
<b>EMERGENCY ASSISTANCE</b>	
<u>Verbal Instruction - Telephone/Intercom (PA) or 2-Way Radios</u>	
- dial INTERCOM; state location and nature of problem (e.g. fire in treatment area)	- go to area to assist
- dial INTERCOM; declare evacuation, state which assembly area	- evacuate plant; shut down equipment, proceed to designated assembly area
<u>Audible Signal - Alarm Horn</u>	
- several short (2-3 sec) signals	- need help, come quickly e.g. spill, fire, injury
<u>Visual/Verbal Instruction - Hand Signal/Voice</u>	
- hand pulled quickly under chin, shout instructions	- shut down equipment
- directional waving of arms, pointing, shouting of instructions	- emergency situation e.g. spill, fire, injury, evacuation; proceed as directed
<b>EVACUATION (Coordinated by EC)</b>	
<u>Verbal Instruction - Telephone/Intercom (PA) of 2-Way Radios</u>	
- dial INTERCOM; declare evacuation, state which assembly area	- evacuate plant; shut down equipment, proceed to designated assembly area
<u>Audible Signal - Alarm Horn</u>	
- one long (10-15 sec) signal; repeat	- evacuate plant; shut down equipment, proceed to <u>primary</u> assembly area
- one long (10-15 sec) signal followed by one short (2-3 sec) signal; repeat	- evacuate plant; shut down equipment, proceed to <u>secondary</u> assembly area



---

METHOD/DEVICEACTION/REACTION

---

Visual/Verbal Instruction - Hand Signal/Voice

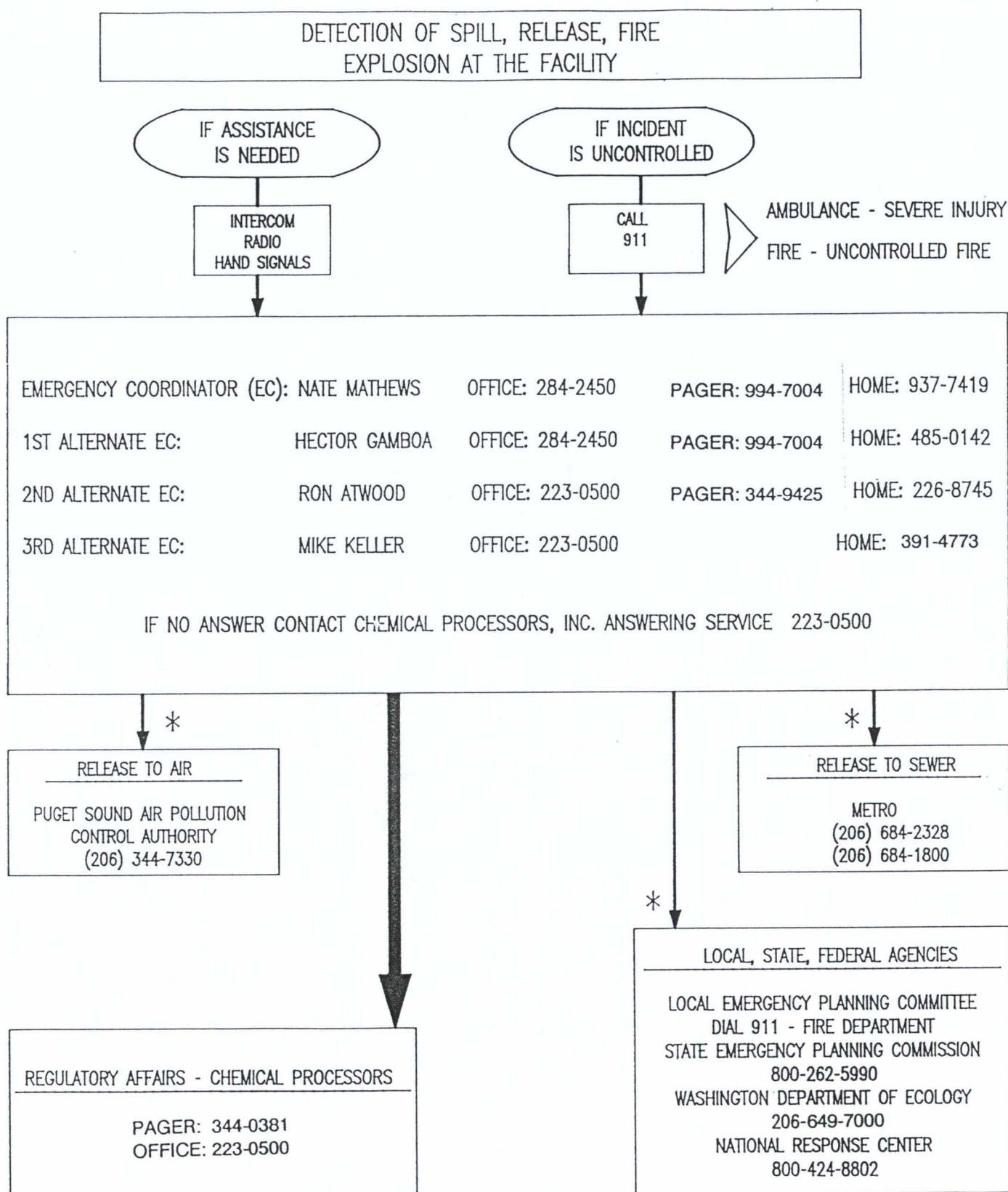
- directional waving of arms,  
pointing, shouting of  
instructions

- emergency situation e.g.  
spill, fire, injury,  
evacuation; proceed as  
directed

---



CHEMICAL PROCESSORS, INC. PIER 91 FACILITY  
EMERGENCY RESPONSE NOTIFICATION FLOW CHART (G4-2.1)



\*THE EMERGENCY COORDINATOR WILL CONTACT THESE AGENCIES IF IT IS READILY DETERMINED THAT THE EMERGENCY THREATENS PUBLIC HEALTH OR THE ENVIRONMENT OUTSIDE THE FACILITY, OTHERWISE REGULATORY AFFAIRS WILL CONTACT THE AGENCIES.



FIGURE G4-2.2 CHEMICAL PROCESSORS, INC. PIER 91 FACILITY  
SAFETY AND HEALTH NOTIFICATION FLOW CHART

ACCIDENT/EMERGENCY INVOLVING EMPLOYEES  
OR NON EMPLOYEES FOR:

1. INJURY
2. POTENTIAL INJURY
3. PROPERTY DAMAGE

CALL

MANAGER: **R.J. GORSHE**

OFFICE: 223-0500

PAGER: 344-0201

SPECIALIST: **MIKE SUTTON**

OFFICE: 223-0500

PAGER: **1-800-759-7243**  
**PIN 67170**



#### G4.1.2 Emergency Coordinator Response

Revised, January 1990

The EC will immediately assess the situation to determine the appropriate emergency response actions including implementation of the Contingency Plan where public health or the environment are threatened. The EC will assure that the Chemical Processors, Inc. procedures for containment and control of emergency situations are initiated (see Section G4.3, Containment and Control of Emergencies) and, if necessary, the EC will contact outside emergency service providers. Neighboring facilities/ personnel who may be in danger will be notified.

In the event of any emergency (regardless of size or extent) the EC will contact the Chemical Processors, Inc. Regulatory Affairs Department and, as required, appropriate local, state and federal agencies will be notified. The EC will evaluate the severity and nature of the incident, and the character, source, quantity and areal extent of the released materials will be identified. The Emergency Response Notification Flow Chart (Figure G4-2) outlines the proper response/notification procedures.

The selection of appropriate response actions will depend on the consideration and assessment of the following factors:

- a. The severity and nature of the incident; fire, explosion or material release.
- b. The potential of severe consequences; what is the location of the incident and to what extent might other areas become involved; are persons off site in danger; will surrounding property be damaged or contaminated; is there a threat to surface and groundwater?



- c. The current weather conditions; temperature, wind direction and velocity and how response activities might be affected.

Identification of the character, source, quantity and areal extent of the released materials can be made through the following methods and sources of information:

- a. Eyewitness accounts; employee discovering emergency
- b. Visual inspection; areal extent, noted fumes, odors, reactions
- c. Source; origin of leak
- d. Tank involved; type of waste stored or treated
- e. Containers involved; labels or placards
- f. Location of incident; operational or segregated storage area
- g. In-plant records; waste tracking forms, container stacking logs, tank volume logs, manifests, generators' waste profiles

If the proper identification cannot be made by using available information, it can be obtained by initiating a sampling and analysis plan to quantify the extent of contamination and associated extent of clean up. A clean up plan for a release to the soil is provided in Appendix G-2.

G4.1.3 Security Personnel/Answering Service Response  
Revision, January 1990

In the event an emergency occurs during non-operational hours, Port of Seattle security personnel are instructed to first attempt to contact the Primary Emergency Coordinator then the Alternates in the order they are listed on Table G2-1. If security is unable to reach a Pier 91 Facility EC, they are instructed to call the corporate office (206) 223-0500. The operator or answering service will provide contact numbers for



Emergency Coordinators at other Chemical Processors, Inc. facilities and for corporate personnel.

Emergencies reported to the corporate office (206) 223-0500 after hours are received by the answering service. The answering service is instructed to first attempt to contact the Primary Emergency Coordinator then the Alternates in the order they are listed on Table G2-1, Emergency Coordinators, Georgetown Facility.

#### G4.2 Notification

Revised, May 1991

40 CFR 264.56(d)

WAC 173-303-145(2) and 173-303-360(2)(d),(e)

The EC will contact Chemical Processors' Regulatory Affairs Department in the event of any emergency regardless of size or extent. The EC will supply specific information as to the type, quantity and location of released material. Regulatory Affairs together with the EC will evaluate this information and if it is determined that the facility has had a hazardous substance release, fire or explosion which could threaten public health or the environment outside the facility or is a nonpermitted release of a reportable quantity of a hazardous substance, the proper local, state and federal agencies will be immediately notified by Regulatory Affairs. Notification will be made for nonpermitted spills or discharges occurring outside of secondary containment regardless of quantity, and for nonpermitted spills or discharges of ten gallons or more if they occur within secondary containment.

The EC will immediately contact these agencies if it is readily determined that the emergency threatens public health or the environment outside the facility. The name and phone numbers of



these agencies are listed below. The Emergency Response Notification Flow Chart (Figure G4-2) outlines the proper response/notification procedures.

- a. Washington Department of Ecology (206) 867-7000
- b. Local Emergency Planning Committee (Dial 911 - Fire Department)
- c. State Emergency Planning Commission (800) 262-5990
- d. National Response Center (800) 424-8802

Specific information concerning the spill will need to be provided to the Washington Department of Ecology and Local and State Emergency Response Committees. An example Emergency Information Reporting Form is located in Appendix G-3. Copies of this form are available at the facility and with the Regulatory Affairs Department.

Notification to the Department of Ecology will include the following:

- Name and phone number of reporter,
- Name and address of facility,
- Time and type of incident (fire, release),
- Name and the quantity of material(s) involved to the extent known,
- Extent of injuries, if any, and
- Possible hazards to public health or the environment outside the facility.



Pursuant to 40 CFR 355.40(b)(1),(2), notification to Local and State Emergency Response Committees will further include, to the extent known:

- An indication of whether the substance is an extremely hazardous substance as defined by Appendices A and B of 40 CFR 355,
- Duration of the release,
- Medium or media into which the release occurred,
- Any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for the exposed individuals,
- Proper precautions to take as a result of the release, including evacuation, and
- Names and telephone numbers of person(s) to be contacted for further information.

G4.3 Containment and Control of Emergencies  
Revised, January 1990, December 1990

40 CFR 264.52(a), 264.56(h)(1), 264.171, 264.196  
WAC 173-303-350(3)(a),(b), 360(2)(i)(i), 630(2), 640(4)(c)

The sections which follow discuss Chemical Processors, Inc. emergency response procedures to minimize possible impact of emergency incidents on public health or the environment. These containment and control procedures may not entail the complete implementation of the Contingency Plan. Emergency response



procedures are described for the containment and control of emergency situations including injured or endangered employees (Section G4.3.1), fires and explosions (Section G4.3.2), spills and releases (G4.3.3), and damaged shipments (G4.3.4).






The EC will commit all necessary resources of the company and may also call a contract clean-up service to assist in the control, containment and clean up of a release. The EC will coordinate the activities of the emergency response agencies.

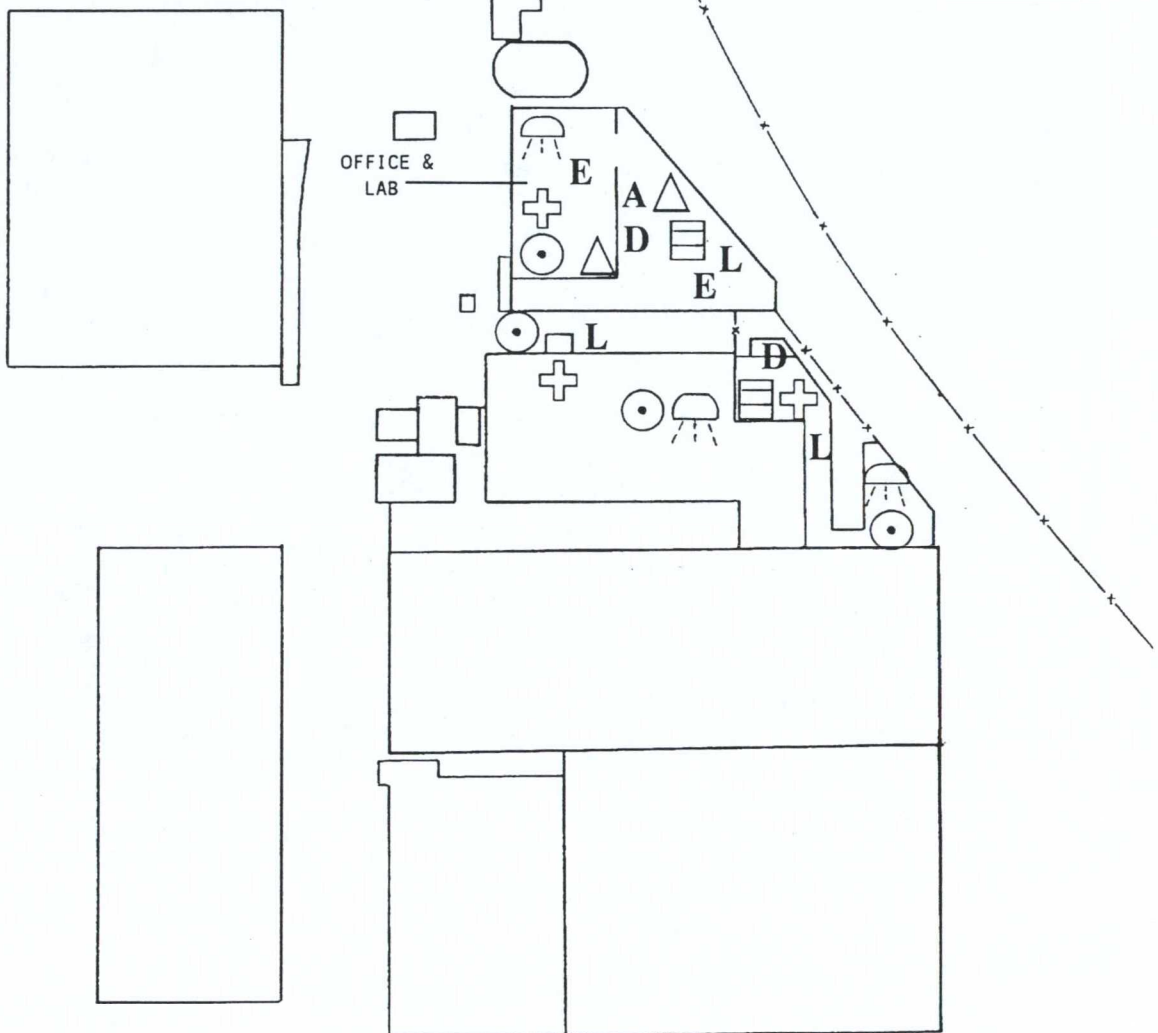
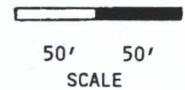
Section G5.0, Emergency Equipment, lists the type, location and description of the emergency equipment maintained at the facility. Figure G4-3 shows the locations of the facility's emergency equipment and Figure G4-4 shows the locations of the fire control equipment.

#### G4.3.1 Injured or Endangered Employees

- Alert others who may be endangered, call for backup, use alarm signals (Table G4-1).
- Use appropriate protective clothing and equipment.
- Apply first aid; first aid kits are located in the operations office, main office and dangerous waste area.
- Phone 911 if ambulance is needed.
- Immediately notify EC (Table G2-1).



LEGEND	
	FIRST AID KITS
	EYE WASH
	SHOWER
	SPILL RESPONSE EQUIPMENT/ TOOLS/CLOTHING
	SPILL RESPONSE KIT
<b>A</b>	ABSORBENT MATERIAL
<b>D</b>	OVERPACK DRUMS
<b>L</b>	BATTERY LANTERNS
<b>E</b>	EMERGENCY AC/BATTERY LIGHTS



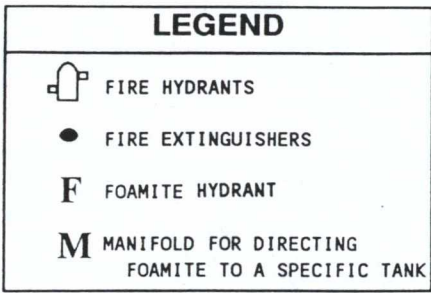
Chemical Processors, Inc.  
Pier 91 Facility

**Locations of Emergency  
Equipment**

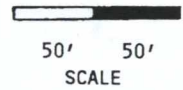
Figure G4-3

Revised, December 1990

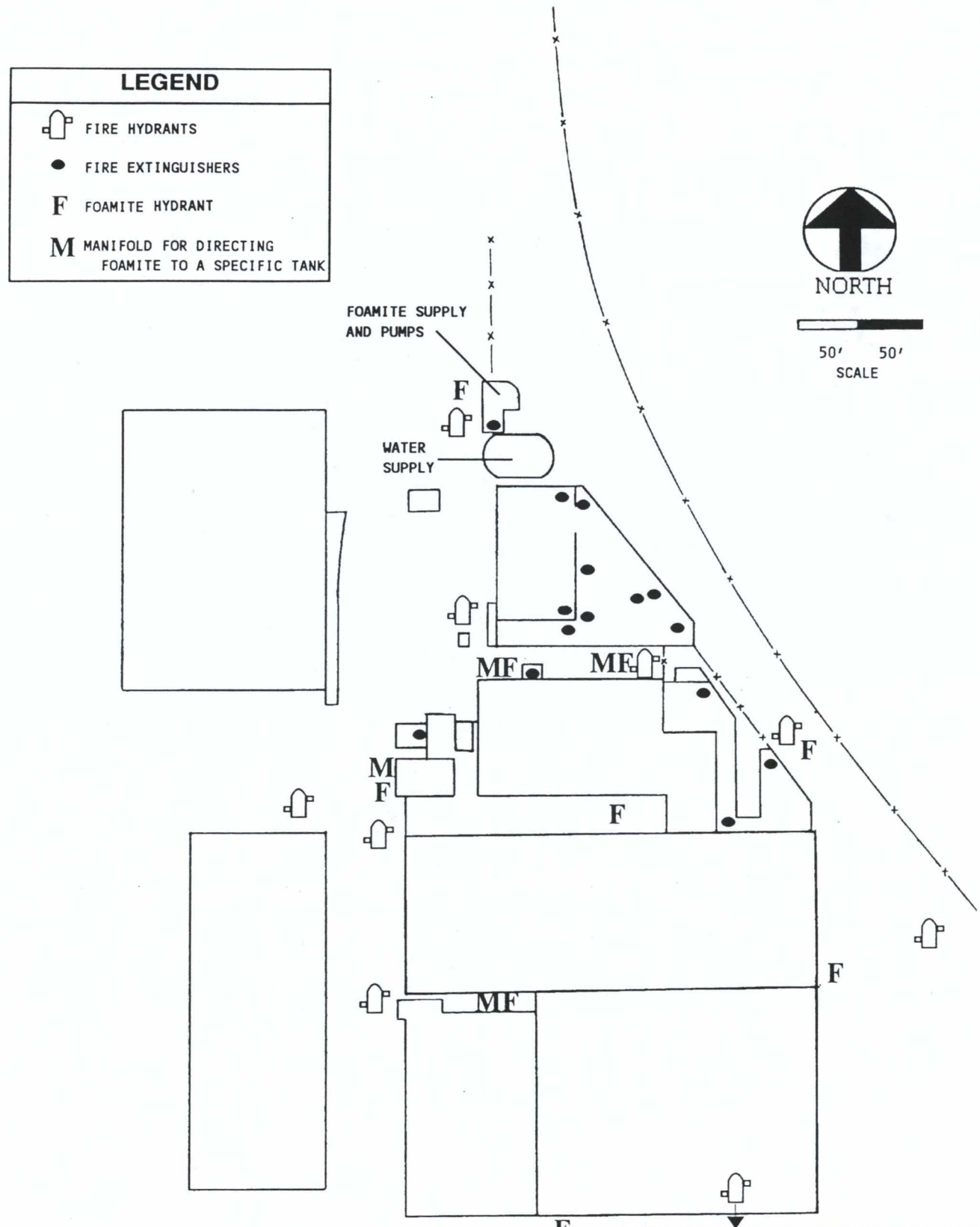




NORTH



50' 50'  
SCALE



Chemical Processors, Inc.  
Pier 91 Facility

**Locations of Fire  
Control Equipment**

Figure G4-4

Revised, December 1990



#### G4.3.2 Fires and Explosions

- Shout "FIRE" warning.
- Alert others who may be endangered, call for back up, use alarm signals (Table G4-1).
- Cut off source, close valves, shut down pumps/equipment.
- Use appropriate protective clothing and equipment.
- Control small fires with extinguishers located throughout the facility (Figure G4-4).
- Manually activate foamite system if fire involves oil tanks (non-dangerous waste portion of facility), use remote foamite hose outlets as necessary (Figure G4-4).
- If fire is not readily and easily controlled, phone 911.
- Immediately notify EC (Table G2-1).
- Attempt to contain spills or runoff by use of absorbent material and diking.
- Remove or isolate incompatible wastes, containers and other materials away from fire when possible.

#### G4.3.3 Spills and Releases

Revised, January 1990

##### Load/Unload Areas

- Alert others who may be endangered (including neighbors), call for back up, use alarm signals (Table G4-1).



- Cut off source, close valves, shut down pumps, eliminate ignition sources.
- Immediately notify EC (Table G2-1).
- Use appropriate protective clothing and equipment.
- Attempt to contain spills or runoff by use of absorbent material and diking.
- Contain and prevent further migration of any visible release to the environment outside of containment, provide for removal and proper disposal of visibly contaminated soil or surface water.
- Pump sumps containing spilled material to appropriate storage/treatment tank. If material is unknown, sample from sumps and analyze for pH, TOX, flash point, or metals prior to pumping to tanks.

#### Containers (drums)

- Alert others who may be endangered, call for back up, use alarm signals (Table G4-1).
- Use appropriate protective clothing and equipment.
- Eliminate ignition sources.
- Locate source, attempt to control leaker so container can be moved and isolated.
- Immediately notify EC (Table G2-1).
- Place container in overpack drum, if necessary.



- Use absorbent materials and diking to contain spill and prevent exposure to incompatible materials.
- Remove or isolate incompatible wastes from the affected area when possible.
- After containment is assured, transfer leaky container contents to another specification drum. Spill residues, clean up materials to be drummed as well.
- Contain and prevent further migration of any visible release to the environment outside of containment, provide for removal and proper disposal of visibly contaminated soil or surface water.

#### Tanks

- Alert others who may be endangered (including neighbors), call for back up, use alarm signals (Table G4-1).
- Cut off source to tank, close valves, shut down pumps, eliminate ignition sources.
- Immediately notify EC (Table G2-1).
- Use appropriate protective clothing and equipment.
- Provide for containment of spill if containment berms have been damaged.
- Remove or isolate incompatible wastes from the affected area when possible.
- Contain and prevent further migration of any visible release to the environment outside of containment, provide for



removal and proper disposal of visibly contaminated soil or surface water.

- After quantity and character of spill has been determined, transfer remaining contents of leaking tank and spilled material in sumps or bermed area to an appropriate storage/treatment tank.
- Immediately remove tank involved in spill or release from service if tank is leaking or unfit for use.
- Assess reason for leak or rupture.
- Procedures for tank repair:
  - a. Transfer remaining material from tank to another compatible tank.
  - b. Air ventilate for 24 hours.
  - c. Use volatile organic vapor detector to verify no volatile vapors are present. Use confined space entry procedures for internal repairs (see Section F2.2.3, Tank Assessment Schedule, for procedure and required personal protective equipment).
  - d. For internal repairs, clean tank with wire brush, pressure washer or steam cleaner (for organics). Capture rinsate water for treatment.
  - e. Specific repairs to a tank must be approved by Chemical Processors' Engineering Department and Regulatory Affairs Department, and certified by an independent, qualified, registered, professional engineer for compliance with 40 CFR 264.196(f) and WAC 173-303-640(7)(f).

#### Transfer Lines and Piping

- Alert others who may be endangered, call for back up, use alarm signals (Table G4-1).



- Cut off flow, close valves, shut down pumps.
- Immediately notify EC (Table G2-1).
- Use appropriate protective clothing and equipment.
- Remove or isolate incompatible wastes from the affected area when possible.
- After quantity and character of spill has been determined, transfer spilled material in sumps or bermed area to an appropriate storage/treatment tank.

#### Releases to Air

- Alert others who may be endangered, call for back up, use alarm signals (Table G4-1).
- Move people from downwind.
- Immediately notify EC (Table G2-1).
- Use appropriate protective clothing and equipment.
- Eliminate ignition sources.
- Control emissions by cutting off source.

#### Non-Permitted Discharge to Sewer

- Cut off flow, close valves, shut down pumps.
- Immediately notify EC (Table G2-1).
- Record event, noting quantity, source and duration of release.



### Flooding Conditions

- Alert others who may be endangered, call for back up, use alarm signals (Table G4-1).
- Use appropriate protective clothing and equipment.
- Eliminate ignition sources, shut down operations.
- Immediately notify EC (Table G2-1).
- Use diking to prevent flooding of and around buildings and structures where necessary.
- Use portable pumps to remove excess water from sumps and/or secondary containment areas, pump to appropriate storage/treatment tank or tank truck.

#### G4.3.4 Damaged Shipments

Revised, January 1990

Damaged or leaking shipment control procedures will be initiated when:

- a. Further transportation would present a hazard to public health or the environment.
- b. The shipment presents an unreasonable hazard to facility operations, or to facility personnel.

Control procedures are as follows:

- Alert others who may be endangered, call for back up, use alarm signals (Table G4-1).



- Use appropriate protective clothing and equipment.
- Determine if leak can be stopped readily.
- Immediately notify EC (Table G2-1) who will call in contractor clean-up/control assistance as needed.
- Attempt to contain spills or runoff by use of absorbent materials and diking.
- Contain and prevent further migration of any visible release to the environment outside of containment, provide for removal and proper disposal of visibly contaminated soil or surface water.

#### G4.4 Prevention of Recurrence

40 CFR 264.56(e), (f), 264.56(h) (1)  
 WAC 173-303-360(2) (f), (g), 360(2) (i) (i)

The EC will take all necessary steps to ensure that a secondary release, fire or explosion does not recur after the initial incident. The EC will ensure that no wastes that may be incompatible with the released material will be treated or stored in the affected area. Waste compatibility can be determined using the ASTM Incompatibility Chart and procedures entitled, "Proposed Guide for Estimating the Incompatibility of Selected Dangerous Wastes Based on Binary Chemical Reaction" or by sampling and analysis of wastes for appropriate analytic parameters (see Section C, Waste Analysis Plan).

If the facility stops operations in response to a fire, explosion or release, the EC will monitor associated tanks for leaks, pressure build up, gas generation or leaks and ruptures in



valves, pipes or other equipment until the emergency has ended and normal operations can resume.

The EC together with the assistance of Chemical Processors' Engineering, Operations and Regulatory Affairs Departments will evaluate the incident to understand why and how the incident occurred and what modifications can be initiated to prevent a recurrence of the same or similar situation. Evaluations will include equipment design, operational procedures, response tactics and personnel safety.

#### G5.0 EMERGENCY EQUIPMENT

40 CFR 264.52(e)

WAC 173-303-350(3)(e)

Table G5-1 lists the type, location, and description of emergency equipment maintained on site at the Pier 91 Facility. Figure G4-3 shows the locations of the facility's emergency equipment and Figure G4-4 shows the locations of the fire control equipment. Quantities of emergency equipment listed in Table G5-1 represent minimum stock quantities. Procedures for regular inspection of emergency equipment are described in Section F2.0, Inspection Schedule.



TABLE G5-1. EMERGENCY EQUIPMENT, PIER 91 FACILITY

Sheet 1 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Absorbent Materials	whse. bldg. 19	- free liquid absorption, diking, spill containment
- diatomaceous earth	"	- "quick sorb", "sorb oil" - 33 lb. bags, stock 30 total
- 3M pads	"	- oil absorbent, water repellent - stock 100 total
Overpack Drums	DW area, whse. bldg. 19	- contain leaking drums - 85 gal. - stock 5 total
Spill Response Kits	DW area, whse. bldg. 19	- clean up small spills, drips - drum containing absorbent and shovel
Hand Tools	whse. bldg. 19 maintenance area	
- brooms	"	- clean up - hand and push type, stock 4 total
- shovels	whse. bldg. 19 maintenance area, spill response kits	- spreading, digging - spade and flat blades, stock 8 total
- squeegees	"	- corral free liquids - stock 4 total



TABLE G5-1. (continued)

Sheet 2 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
- scrapers	"	- scraping, chipping - stock 3 total
- wheelbarrow	"	- hauling, consolidation - stock 1 each
- visqueen (plastic)	"	- protection from exposure - appx. 32 x 100 ft. rolls - stock 1 roll
- barrier tape	"	- sealing off areas - high visibility, printed with caution warning - stock 500-1000 feet
Portable Transfer Pump	mobile unit, near loading areas	- liquid removal and transfer - 3 inch, diesel powered, centrifugal - stock 1 each
Portable Transfer Hoses	loading/unloading tank system containment areas	- liquid removal and transfer - 2 to 4 inch, wire ribbed, cross link polyethylene, rubber - 100-200 feet total
Drip Buckets	loading/unloading areas primarily	- contain small drips, leaks - 5 to 10 gal. - 5 total



TABLE G5-1. (continued)

Sheet 3 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Respirator Cartridges	equipment storage room, bldg. 19	<ul style="list-style-type: none"><li>- vapor, fume, dust protection</li><li>- organic, hepa; disposable</li><li>- stock 10-20 each</li></ul>
Gloves	"	<ul style="list-style-type: none"><li>- protection from exposure</li><li>- latex or cotton</li><li>- stock 10-20 pair</li></ul>
Boots	"	<ul style="list-style-type: none"><li>- protection from exposure</li><li>- steel toed, rubber</li><li>- stock 2-4 extra pair</li></ul>
Rain Suits	"	<ul style="list-style-type: none"><li>- protection from exposures</li><li>- neoprene, jackets and pants</li><li>- stock 2-4 extra suits</li></ul>
Hearing Protection	"	<ul style="list-style-type: none"><li>- foam plug type</li><li>- stock 1 box</li></ul>
First Aid Kits	plant office, DW area, operations office	<ul style="list-style-type: none"><li>- on-site first aid, minor injuries</li></ul>
Eye Wash Stations and Showers	see Figure G4-3	<ul style="list-style-type: none"><li>- decontamination, emergency aid</li><li>- located at possible exposure areas, easily accessible</li></ul>



TABLE G5-1. (continued)

Sheet 4 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Fire Hydrants	see Figure G4-4	<ul style="list-style-type: none"> <li>- fire control water supply</li> <li>- several hydrants on and adjacent to facility grounds</li> </ul>
Foamite System	see Figure G4-4	<ul style="list-style-type: none"> <li>- fire suppressant system pulumbed directly into tanks (Non-RCRA only) and with separate hose outlets throughout facility</li> <li>- independent water supply tank, and fuel powered pumps</li> <li>- manually activated and controlled by manifolds</li> </ul>
Fire Extinguishers	see Figure G4-4	<ul style="list-style-type: none"> <li>- portable, multi and specific purpose, size and type; A=ordinary combustibile, B=flammable liquids, C=electrical</li> </ul>
#1	laboratory, bldg. 19	10 lb. ABC
#2	locker room, bldg. 19	10 lb. ABC
#3	north entrance ramp, bldg. 19	20 lb. ABC
#4	north end whse., bldg. 19	20 lb. ABC
#5	center west wall whse., bldg. 19	20 lb. ABC



TABLE G5-1. (continued)

Sheet 5 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
#6	outside shop, bldg. 19	10 lb. ABC
#7	inside shop, bldg. 19	1.7 lb., Halon, BC
#8	east loading dock, bldg. 19	20 lb. ABC
#9	southwest wall whse., bldg. 19	20 lb. ABC
#10	north wall inside boiler room, bldg. 19	20 lb. ABC
#11	operations office	6 lb. BC
#12	welding cart	2 1/2 lb. ABC
#13	electrical control bldg. 25	20 lb. ABC
#14	foamite/pump bldg.	10 lb. ABC
planned	DW loading/unloading area	ABC type
"	DW area, north end	ABC type
"	DW area, south end	ABC type
Alarm Horns	see Figure G4-1	<ul style="list-style-type: none"> <li>- compressed CO<sub>2</sub> air horns</li> <li>- reliable, simple operation, self contained</li> <li>- audible up to one mile away</li> </ul>



TABLE G5-1. (concluded)

Sheet 6 of 6

EQUIPMENT	LOCATION	DESCRIPTION/USE/CAPABILITIES
Telephone/Intercom and Public Address Speakers	see Figure G4-1	<ul style="list-style-type: none"><li>- voice communication, warning and direction</li><li>- all phones capable of intercom access and outside dialing</li><li>- phone system equipped with battery back up</li></ul>
Two-Way Radios	main office, mobile units	<ul style="list-style-type: none"><li>- voice communication, warning and direction, kept on person</li><li>- battery powered, on charge when not in use</li></ul>
Emergency Lighting and Lanterns	see Figure G4-3	<ul style="list-style-type: none"><li>- enclosed bldgs. have AC/battery lights, lanterns located outside throughout plant</li></ul>
Electrical Control Panels	DW area, electrical bldg. 25, boiler room bldg. 19	<ul style="list-style-type: none"><li>- circuit breaker panel for facility electrical system and equipment</li></ul>
Fork Lift	mobile unit	<ul style="list-style-type: none"><li>- general use, equipped with drum handling attachment</li></ul>



## G6.0 POST-EMERGENCY PROCEDURES

### G6.1 Storage and Treatment of Released Materials Revised, July 1990

40 CFR 264.56(g), 264.56(h)(1)  
WAC 173-303-360(2)(h), 360(2)(i)(i)

Once the emergency situation has ended, the EC will initiate the proper clean up, storage and treatment of the released material and residues. This will occur as soon as possible in order to minimize potential danger to public health or the environment. The EC will also check to be sure that incompatible wastes are not treated or stored in the affected area while clean up and decontamination procedures are underway.

Released materials within the secondary containment areas of the tank system and associated loading/unloading areas will be pumped to compatible storage or treatment tanks. Leaking containers will be segregated and placed in overpack drums if necessary. The released material and the contents of the leaking drums will be transferred to specification containers for storage. Spilled sludges generated on site from treatment processes will be consolidated for storage. On-site treatment operations will occur if the facility is capable of treating the material. If not, the material will be stored for shipment to an alternate treatment facility. Rinsate from decontamination of emergency response equipment will be handled in the same manner.

Spill residues and clean-up materials such as absorbents, diking material and protective clothing will be consolidated for storage and off-site disposal. Water from fire control or



flooding will be analyzed for discharge permit limits and any additional constituents that are suspected or known to be present prior to processing. A determination of the appropriate management method will be made based on the results of these analyses. If discharge limits are met, and Metro has given authorization to discharge, the liquid will be discharged directly to the sanitary sewer system. If discharge limits are not met, the material will be treated on-site or transported off-site for treatment and/or disposal.

#### G6.2 Equipment Decontamination and Maintenance

40 CFR 264.56(h)(2)

WAC 173-303-360(2)(i)(ii)

The EC is responsible for initiating and overseeing post-emergency equipment replenishment, maintenance and inspection prior to resuming operations in the affected area.

All equipment used during the emergency will be decontaminated (if necessary) and readied for future use. Decontamination will be done by steam cleaning and/or triple washing with appropriate cleaner. All rinsate will be contained and treated on site. Fire extinguishers will be recharged and personnel protective equipment and absorbent materials replenished.

The emergency equipment available on site is listed in Table G5-1. The inspection of the emergency equipment will be conducted using Chemical Processors, Inc. standard in-plant inspection forms for both emergency and facility-wide equipment (see Section F2.0, Inspection Schedule).



### G6.3 Reactivation of Activities in the Affected Area

40 CFR 264.56(i)

WAC 173-303-360(2)(j)

Prior to resuming operations and upon consultation with Chemical Processors' Regulatory Affairs Department, the EC will notify the Washington Department of Ecology that the facility is in compliance with WAC 173-303-360(2)(j). This regulation specifies that before operations are resumed in the affected area(s) of the facility, all emergency equipment used for the emergency must be cleaned and fit for its intended use, and no waste that may be incompatible with the released material may be treated or disposed of until clean-up procedures are completed.

### G6.4 Personnel Debriefing

The EC, together with the assistance of Chemical Processors' Engineering, Operations and Regulatory Affairs Departments, will conduct debriefings of plant personnel and local authorities to assess the effectiveness of the preparedness and prevention measures, response activities, control and evacuation procedures related to the incident. Based on this review, the Contingency Plan will be evaluated and updated as needed.



## G7.0 COORDINATION AGREEMENTS

Revised, January 1990, November 1991

40 CFR 264.37, 264.52(c), 264.53(b)

WAC 173-303-340(4), 350(3)(c), 350(4)(b)

Chemical Processors, Inc. has established coordination agreements with local emergency response providers and state and local emergency response teams. Public agencies and emergency service providers that have entered into coordination agreements are listed below along with their addresses, telephone numbers and summary statement regarding terms of the coordination agreement.

The agencies/organizations listed below have been provided copies of the Pier 91 Facility Contingency Plan to familiarize them with the properties of the dangerous waste handled at the facility, the associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes.

The fire department will have the most significant role in emergency response and is kept familiar with the Pier 91 Facility operations through several facility visitations per year.

As required in Section 311 and 312 of SARA Title III, Chemical Processors, Inc. submits MSDS (Material Safety Data Sheets) and Tier II Emergency Hazardous Chemical Inventory forms annually to the State and Local Emergency Planning Committees, and the Seattle Fire Department. The information includes type, quantity, location, physical characteristics, and safety and health information of hazardous chemicals stored/treated on site. This information is available to



local hospitals, police, and paramedics through the Local Emergency Planning Committee.

Current arrangement letters are provided in Appendix G-4, included is an example revised letter of arrangement inviting emergency response agencies/organizations to tour the Pier 91 Facility. Unsigned or non-returned copies of current arrangement letters are filed in the operating record of the facility.

Seattle Fire Department

DIAL 911 - EMERGENCY

301 2nd Avenue South  
Seattle, WA 98104

(206) 386-1400

The Seattle Fire Department is kept familiar with the Pier 91 Facility operations through several facility visitations per year, including an annual inspection per WAC 173-303-395(1)(d). The Seattle Fire Department is capable of assisting in hazardous materials response and has general fire fighting capabilities. Medical response, hospital and police are contacted as needed via the 911 system for injury or evacuation emergencies. In the event of an emergency requiring evacuation, such decisions will be made and implemented by the fire department after consultation with the Emergency Coordinator. The Seattle Fire Department has received a current copy of the Pier 91 Facility Contingency Plan.

Seattle Police Department

DIAL 911 - EMERGENCY

The Seattle Police Department will provide assistance in traffic and security control in the event of an emergency and will assist in the evacuation of neighboring areas should evacuation be necessary.



Port of Seattle

(206) 728-3190

2201 Alaskan Way South  
Seattle, WA 98121

The Port of Seattle provides 24-hour guard controlled access to the Port and Pier 91. Port of Seattle guards periodically patrol the area of the facility. The Port of Seattle has received a current copy of the Pier 91 Facility Contingency Plan.

Seattle Occupational Medical Center

(206) 767-9800

4634 East Marginal Way South Suite 120  
Seattle, WA 98134

The Seattle Occupational Medical Center provides emergency care during normal working hours for persons exposed to hazardous materials at the Pier 91 Facility, and to persons injured as a result of an accident or fire. The Medical Center also oversees the medical surveillance program for employees of the Pier 91 Facility, conducting baseline physical exams for new employees and annual physical exams for all employees. The Medical Center has received a current copy of the Pier 91 Facility Contingency Plan.

Swedish Hospital Medical Center

(206) 386-6048

747 Summit Avenue  
Seattle, WA 98104

Occupational Health Nurse  
(206) 386-2573  
Emergency Room

The Swedish Hospital Medical Center will provide emergency care during off-hours to persons exposed to hazardous materials at the Pier 91 Facility, and to persons injured as a result of an accident or fire. The Occupational Health Nurse has received a current copy of the Pier 91 Facility Contingency Plan.



Chemical Processors, Inc. Marginal Way Office (206) 682-4898  
or 223-0500

7440 W. Marginal Way South  
Seattle, WA 98108

The Chemical Processors, Inc. Marginal Way office can provide emergency response services in the event of an incident beyond the response capabilities of Chemical Processors Inc. Pier 91 Facility and equipment. The Chemical Processors, Inc. Marginal Way office has received a current copy of the Pier 91 Facility Contingency Plan.

Washington Department of Ecology (206) 649-7000  
24 Hour Emergency

Washington Department of Ecology  
Northwest Regional Office  
3190 160th Avenue SE  
Bellevue, WA 98008-5452

The Washington Department of Ecology will be immediately contacted in the event of a reportable spill or release to the environment. All necessary information will be provided as per WAC 173-303-360. The Washington Department of Ecology has received a current copy of the Pier 91 Facility Contingency Plan.

Metro - Municipality of  
Metropolitian Seattle

Metro Environmental Laboratory (206) 684-2328  
Industrial Waste Section  
322 W. Ewing Street  
Seattle, WA 98119

West Point Treatment Plant (206) 684-1800  
24 Hours



Metro will be immediately notified of any unpermitted, unapproved and/or accidental discharge to the sanitary sewer. Within 14 days of the occurrence, a written notification discussing circumstances and remedies will be submitted to Metro. Metro has received a current copy of the Pier 91 Facility Contingency Plan.

U.S. Coast Guard

(800) 924-8802  
National Response Center

Commanding Officer  
U.S. Coast Guard  
Marine Safety Office - Puget Sound  
1519 Alaskan Way South  
Seattle, WA 98134-1192  
Attn: Port Operations

(206) 286-5540  
24-Hour Local No.

The local U.S. Coast Guard On-scene Coordinator is contacted directly, as well as, through the National Response Center, for spills on the navigable waters or contiguous zone of the United States. The U.S.C.G. station at the above address has received a current copy of the Pier 91 Facility Contingency Plan.



G8.0 EVACUATION PLAN  
Revised, January 1990

40 CFR 264.52(f)  
WAC 173-303-350(3)(f)

In the event a fire or release of a hazardous material could endanger the lives of persons in and outside the facility premises, evacuation of the facility will occur according to procedures outlined below. Figure G8-1 shows exit routes and assembly areas to be used during evacuation. Maps indicating the exit routes and assembly areas are posted throughout the facility (e.g. tank systems, warehouses, office).

- The EC coordinates all evacuation procedures.
- All personnel will be immediately notified by verbal or visual instruction or by audible signal of an emergency requiring evacuation to the primary or secondary assembly area.
- Neighboring facilities/personnel will be notified if necessary by Chemical Processors, Inc. or by emergency response personnel (e.g. police, fire).

Verbal Instruction - Telephone/Intercom (PA) or 2-Way Radio

- |  |  |
|--|--|
| - Dial INTERCOM; declare evacuation,<br>state which assembly area<br>(primary or secondary) is<br>to be used | - evacuate plant;<br>shut down<br>equipment, proceed<br>to designated<br>assembly area |
|--|--|



#### Audible Signal - Alarm Horn

- one long (10-15 sec) signal;  
repeat
- evacuate plant;  
shut down  
equipment, proceed  
to primary  
assembly area
- one long (10-15 sec) signal  
followed by one short (2-3 sec)  
signal; repeat
- evacuate plant;  
shut down  
equipment, proceed  
to secondary  
assembly area

#### Visual/Verbal Instruction - Hand Signal/Voice

- directional waving of arms,  
pointing, shouting of  
instructions
- emergency situation  
e.g. spill, fire,  
injury, evacuation;  
proceed as directed
- The primary assembly area is outside the main office to the northwest; if this area is downwind of potentially hazardous emissions, the secondary assembly area southeast of the dangerous waste area be utilized (Figure G8-1).
- At the assembly area, the EC or designee will account for all persons by employee head count and visitor logs.
- Call 911 - Emergency.
- Notify neighboring facilities/personnel if necessary.
- The Seattle Fire Department in conjunction with the EC will determine the need to evacuate beyond the area of the facility.



- No one will re-enter the facility during evacuation conditions without the permission of the EC and without the proper protective clothing and equipment.
- Approval of the safe re-occupancy of the facility will be determined by the EC in consultation with the responding emergency service agencies.

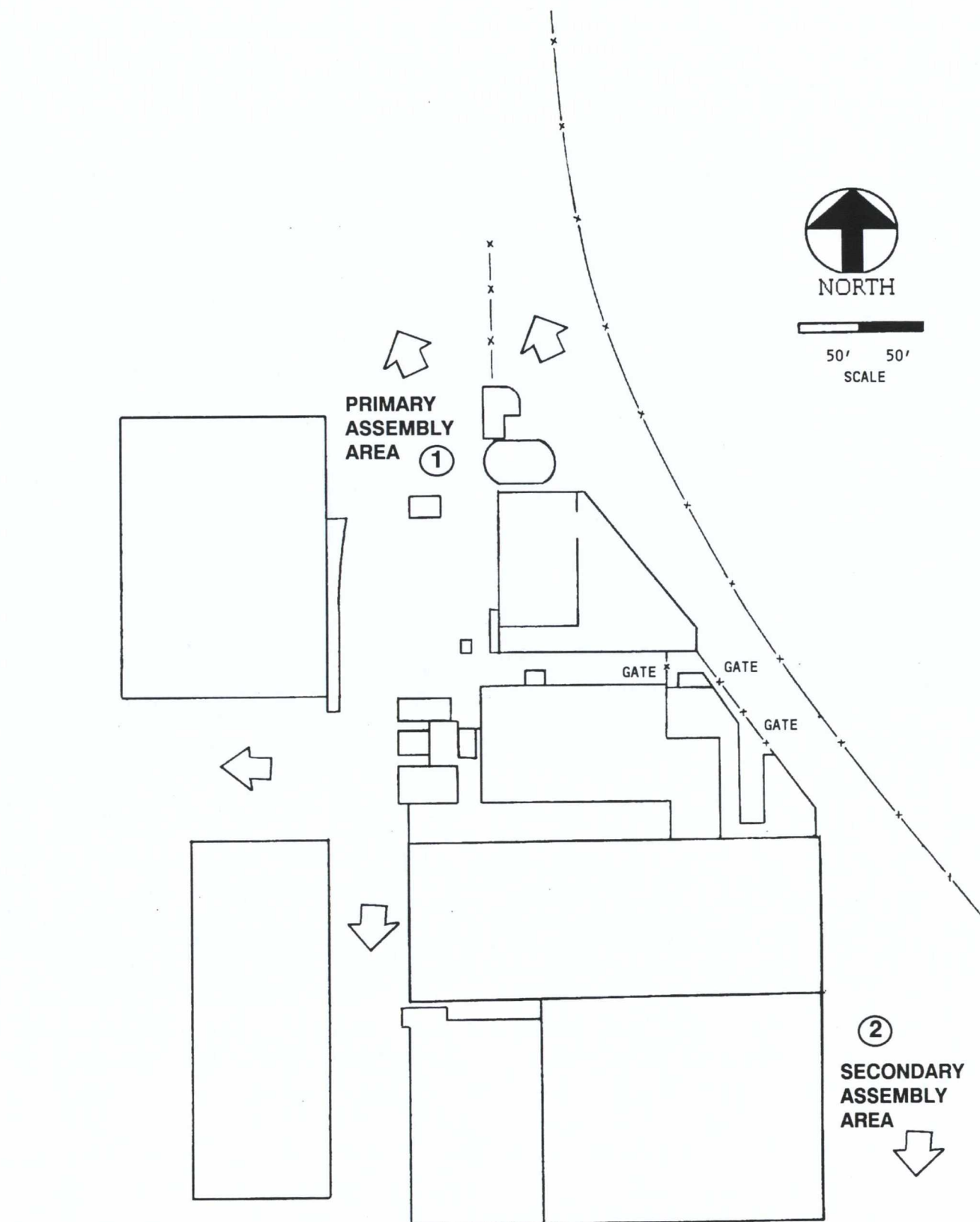




NORTH



50' 50'  
SCALE



Chemical Processors, Inc.  
Pier 91 Facility

**Facility Exits  
and Assembly Areas**

Figure G8-1



## G9.0 INCIDENT REPORTS

Revised, January 1990

40 CFR 264.56(j), 264.196(d)

WAC 173-303-360(2)(j), (k)

After an emergency episode requiring the complete implementation and notification outlined in the Contingency Plan, Chemical Processors, Inc. will complete the following notification requirements:

a) The Emergency Coordinator in conjunction with the Regulatory Affairs Department will immediately notify appropriate agencies of a reportable release, following procedures described in Section G4.2, Notification. This includes required notification of a reportable quantity release to the Local Emergency Planning Committee and the State Emergency Planning Commission as required by 40 CFR 355.

b) Chemical Processors, Inc. will submit to the Washington Department of Ecology, within 15 days of the incident, a written report detailing the following:

- Name, address and telephone number of facility owner or operator,
- Name, address and telephone number of facility,
- Date, time and type of incident (e.g. fire, explosion),
- Cause of the incident,
- Name and quantity of material(s) involved,
- Extent of injuries, if any,
- An assessment of actual or potential hazards to public health or the environment, where applicable,
- Estimated quantity and disposition of recovered material(s) that result from the incident, and
- Measures taken to prevent reoccurrence of this type of incident.



c) Chemical Processors, Inc. will submit in writing as soon as possible, information as outlined in 40 CFR 355.40(b)(1) to the Local and State Emergency Planning Committees. The information shall include an update regarding:

- The chemical name of substance released,
- Whether or not the substance is an Extremely Hazardous Substance,
- An estimate of the quantity released into the environment,
- The time and duration of the release,
- The medium or media into which the release occurred,
- Any known or anticipated acute or chronic health risks associated with the emergency and (where appropriate) advice regarding medical attention necessary for exposed individuals,
- Proper precautions to take as a result of the release, including evacuation,
- Names and phone numbers of persons to contact,
- Summary of actions taken to respond to and contain the release,
- Summary of any known acute or chronic health risks, and
- Any advice regarding medical attention necessary for exposed individuals.

d) As described in Section G6.3, prior to resuming operations and upon consultation with Chemical Processors' Regulatory Affairs Department, the EC will notify the Washington Department of Ecology that the facility is in compliance with WAC 173-303-360(2)(j). This regulation specifies that before operations are resumed in the affected area(s) of the facility, all emergency equipment used for the emergency must be cleaned and fit for its intended use, and no waste that may be incompatible with the released material may



be treated or disposed of until clean up procedures are completed.

e) Chemical Processors, Inc. will submit a written report to Metro - Municipality of Metropolitan Seattle within 14 days of an unpermitted discharge. The report will contain the following information:

- Circumstances of release,
- Quantity and quality of discharge, and
- Remedies taken to prevent recurrence.

f) Within 30 days of detection of a release to the environment from the failure of a tank system or secondary containment system, a report will be submitted to the Washington Department of Ecology (Ecology) containing the following information:

- Likely route of migration of the release,
- Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate),
- Results of any monitoring or sampling conducted in connection with the release (if unavailable within 30 days, data to be submitted as soon as becomes available),
- Description of response actions taken or planned.



## G10.0 AMENDMENTS TO CONTINGENCY PLAN

40 CFR 264.54

WAC 173-303-350(5)

The Contingency Plan will be reviewed and amended for the following reasons:

- a. Applicable regulations or the facility permit are revised.
- b. The plan fails in an emergency.
- c. The facility changes (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of dangerous waste or dangerous waste constituents, or in a way that changes the response necessary in an emergency.
- d. The list of Emergency Coordinators changes.
- e. The list of emergency equipment changes.

Copies of the updated Contingency Plan will be distributed to the emergency agencies listed in Section G7.0, Coordination Agreements, and Chemical Processors, Inc. personnel responsible for its implementation. A master distribution list is maintained at the Chemical Processors, Inc. corporate office for verification that each agency or facility has the most recent version of the plan.











APPENDIX G-1

LETTER OF AUTHORIZATION -  
EMERGENCY COORDINATORS

Revised, December 1990





A Burlington  
Environmental Inc.  
Company

November, 1988

To Whom It May Concern:

Chemical Processors, Inc. hereby grants to the individuals designated as "Emergency Coordinators" for the control of regulated waste(s) emergencies in the approved Contingency Plan of the Pier 91 Facility, authority to commit such resources of Chemical Processors, Inc. as are needed to carry out the Contingency Plan.

M.P. Keller, Vice President of Operations  
Chemical Processors, Inc.

CHEMICAL PROCESSORS, INC.

2203 Airport Way South . Suite 400 • Seattle, Washington 98134  
(206) 223-0500 • FAX: 223-7791



Appendix G-2

CLEAN UP PLAN FOR RELEASE TO SOIL

Revised, January 1990, May 1991, July 1991



## APPENDIX G-2

### Clean up Plan for Release to Soil

- a. Contain and remove excess released material.
- b. Based on visual observation of areal extent, remove contaminated soil.
- c. Take representative samples of spill and background area, and of spilled material if necessary.
- d. Analyze the samples for appropriate parameters and characteristics of the spilled material.
- e. Based on analysis of the representative samples, determine if the released material has contaminated the soil beyond the initial excavation and if further excavation of the spill area is needed.
- f. If further excavation is necessary, repeat analytic procedures until satisfactory results are obtained.
- g. Excavated soil will be analyzed to determine the appropriate storage, treatment or off-site disposal measures.

Standard sampling methods, labeling, chain of custody and analytic procedures will be used. Test Methods for Evaluating Solid Waste, SW-846, U. S. Environmental Protection Agency, November 1986, will be used as a guideline.

The spill area will be cleaned up such that the levels of dangerous waste or dangerous waste residues do not exceed



background environmental levels, for any waste managed at the facility, which is either listed under discarded chemical product or dangerous waste sources (WAC 173-303-081 or 082) or is designated by the dangerous waste characteristics of WAC 173-303-090, and at least the designation limits of dangerous waste mixtures (WAC 173-303-084), or toxic, persistent, or carcinogenic dangerous wastes (173-303-101 through 103), for any waste managed at the facility, which is not listed under WAC 173-303-081 or 082 and is not designated by the characteristics of WAC 173-303-090. Clean-up levels developed under the Model Toxics Control Act (MCTA) Clean-up Standards of WAC 173-340 may also be applicable for removal or decontamination, if appropriate.



APPENDIX G-3

EXAMPLE EMERGENCY INFORMATION  
REPORTING FORM



IN THE MATTER OF THE ESTATE OF [REDACTED]

FILED FOR ESTATE  
THIS MATTER BEING RECORDED

IN THE MATTER OF THE ESTATE OF [REDACTED]

RECORDED FOR ESTATE  
ONE OF ESTATE OF [REDACTED] - [REDACTED]

FILED FOR ESTATE  
RECORDS OF ESTATE OF [REDACTED] COMMISSION

RECORDS OF ESTATE - ESTATE OF [REDACTED]  
ONE OF ESTATE OF [REDACTED] - [REDACTED]

RECORDS OF ESTATE  
RECORDS OF ESTATE



CHEMICAL PROCESSORS, INC. PIER 91 FACILITY  
EMERGENCY INFORMATION REPORTING FORM

WASHINGTON DEPARTMENT OF ECOLOGY  
(206) 867-7000

LOCAL EMERGENCY PLANNING COMMITTEE  
DIAL 911 - FIRE DEPT.

NATIONAL RESPONSE CENTER  
(800) 424-8802

STATE EMERGENCY PLANNING COMMISSION  
(800) 262-5990

NAME AND ADDRESS OF FACILITY		NAME OF REPORTER AND PHONE # WHERE REPORTER MAY BE LOCATED	
NAME AND PHONE NUMBERS OF ADDITIONAL CONTACTS FOR INFORMATION			
DATE		TIME	
TYPE OF INCIDENT (SPILL, GASS RELEASE, ETC.)		MEDIA INTO WHICH RELEASE OCCURED (WATER, AIR, SOIL, ETC.)	
IDENTIFICATION OF MATERIAL			
IS MATERIAL AN EXTREMELY HAZARDOUS SUBSTANCE? (REF: APPX A AND B, 40 CFR 355)		QUANTITY AND DURATION OF RELEASE	
POSSIBLE HAZARDS TO THE ENVIRONMENT			
ASSOCIATED ACUTE OR CHRONIC HEALTH RISKS (KNOWN OR ANTICIPATED)			
PRECAUTIONS TO BE TAKEN			
EXTENT OF INJURIES			
OTHER COMMENTS			